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GRANADA UNIVERSITY

ANTECEDENTS AND CONSEQUENCES OF UNIVERSITY BRAND IDENTIFICATION

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DEDICATION

This work is dedicated to the beautiful soul of my father

And to the persons who mean everything to me:

My beloved mother, brothers, wife, and my little angels Ziad and Asia

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First and foremost, all praises to Allah for giving me the strength, ability, and perseverance to complete this work.

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ABSTRACT

JUSTIFICATION: In today's world marketplace, higher education institutions facing intense challenges such as increasing competition due to globalization, decreasing financial support from governments, the decline in the university-going population, etc. Thus, higher education institutions are increasingly adopting marketing and branding strategies that have been proved effective in the business domain to overcome those challenges and enhance their competitiveness. Self-identification relationship from the social identity perspective (i.e., Social Identity Theory) has been proposed as a useful strategy to build deep, committed, and enduring relationships with the target of the identification in the organizational settings (where the organization is the target of the identification) and in the marketing context where the brand/company is the target of the identification). However little attention has been paid to investigate the notion of self-identification relationship in the university context.

PURPOSE: The general objective of this study is to provide a comprehensive conceptual framework for the cognitive antecedents of university brand identification and its consequences on student's attitudes and behaviors toward the university. Precisely, this study aims to investigate the predicting role of university-self similarity, university prestige, university distinctiveness, and university social responsibility on university brand identification directly and indirectly through university brand attractiveness. It also aims to examine the influence of university brand identification on student loyalty directly and indirectly via student satisfaction and student trust. Finally, this study also seeks to study the mediating role of university brand identification in the linkage between university brand attractiveness and student satisfaction, student trust, and student loyalty.

METHODOLOGY: Cross-sectional surveys of 772 undergraduate students from different Spanish universities and structural equation modeling were used to test and validate the conceptual model.

RESULTS: University-self similarity and university social responsibility significantly influence university brand identification directly and indirectly via university brand attractiveness because the latter is found to have a

complementary mediation effect in these relationships, while university prestige and university distinctiveness affect university brand identification indirectly only via university brand attractiveness due to the full mediation effect of university brand attractiveness in these relationships. The results also revealed that university brand identification directly influences student loyalty and indirectly through the complementary mediation effect of student satisfaction in this relationship, while university brand identification affects student trust indirectly only because student satisfaction is found to have a full mediation effect in this relationship. Finally, the results show that university brand attractiveness is a crucial predictor of student satisfaction, student trust, and student loyalty, university brand identification is found to have a complementary mediation effect only in the linkage between university brand attractiveness and both student satisfaction and student loyalty.

IMPLICATIONS: This study offers relevant insights into the emerging research on university brand identification from the social identity perspective and the body of knowledge on a student-university relationship. Most importantly, this study suggests that the social identity perspective could be integrated with social exchange variables to enhance students' relationship with the university and engender their loyal behaviors toward the university. The study also provides several practical insights into the higher education sector to help universities to build a strong and enduring relationship with students.

RESUMEN

JUSTIFICACIÓN: En el actual contexto mundial, las instituciones de educación superior se enfrentan a intensos desafíos como el aumento de la competencia debido a la globalización, la disminución del apoyo financiero de los gobiernos, la disminución de la población que asiste a la universidad, etc. Así pues, las instituciones de educación superior están adoptando cada vez más estrategias de comercialización y de marca que han demostrado su eficacia en el ámbito empresarial para superar esos desafíos y aumentar su competitividad. La relación de la auto identificación (desde la perspectiva de la identidad social, es decir, la teoría de la identidad social) se ha propuesto como una estrategia útil para establecer relaciones profundas, comprometidas y duraderas en los entornos organizativos (donde la organización es el objetivo de la identificación) y en el contexto de la comercialización (donde la marca/empresa es el objetivo de la identificación). Sin embargo, se ha prestado poca atención a la investigación de la relación de la auto identificación con otras variables en el contexto universitario.

OBJETIVO: El objetivo general de este estudio es proporcionar un marco conceptual completo que recoje los antecedentes cognitivos de la identificación con la marca universitaria y sus consecuencias en las actitudes y comportamientos de los estudiantes hacia la universidad. Precisamente, este estudio investiga el papel predictor de la similitud entre la universidad y el yo, el prestigio de la universidad, el carácter distintivo de la universidad y la responsabilidad social de la universidad en la identificación con la marca universitaria, directa e indirectamente a través del atractivo de la marca universitaria. También examina la influencia de la identificación con la marca de la universidad en la lealtad de los estudiantes directa e indirectamente a través de la satisfacción y la confianza de los estudiantes. Por último, este estudio estudia el papel mediador de la identificación con la marca universitaria en la vinculación entre el atractivo de la marca universitaria y la satisfacción de los estudiantes, la confianza de los estudiantes y la lealtad de los estudiantes.

METODOLOGÍA: Se utilizaron encuestas transversales a 772 estudiantes de diferentes universidades españolas y el modelado de ecuaciones estructurales para probar y validar el modelo conceptual.

RESULTADOS: La similitud entre la universidad y el yo y la responsabilidad social de la universidad influyen de manera significativa en la identificación con la marca universitaria directa e indirectamente a través del atractivo de la marca universitaria porque se considera que ésta última tiene un efecto complementario de mediación en estas relaciones, mientras que el prestigio y la distintividad de la universidad afectan a la identificación con la marca universitaria de manera indirecta sólo a través del atractivo de la marca universitaria debido al pleno efecto de mediación del atractivo de la marca universitaria en estas relaciones. Los resultados también revelaron que la identificación con la marca universitaria influye directamente en la lealtad de los estudiantes e indirectamente a través del efecto mediador de la satisfacción de los estudiantes en esta relación; mientras que la identificación con la marca universitaria afecta a la confianza de los estudiantes indirectamente (dado que se comprueba que la satisfacción de los estudiantes tiene un efecto completo de mediación en esta relación). Por último, los resultados muestran que el atractivo de la marca de la universidad es un predictor crucial de la satisfacción la confianza de los estudiantes y la lealtad de los estudiantes; y que la identificación con la marca de la universidad tiene un efecto mediador en la relación establecida entre el atractivo de la marca de la universidad y la satisfacción y entre entre el atractivo de la marca y la lealtad de los estudiantes.

IMPLICACIONES: Este estudio ofrece algunas aportaciones de interés relacionadas con la literatura emergente sobre la identificación con la marca universitaria desde la perspectiva de la identidad social y la relación entre estudiantes y universidad. Una aportación a destacar es que este estudio sugiere que la perspectiva de la identidad social podría integrarse con variables de intercambio social para mejorar la relación de los estudiantes con la universidad y generar comportamientos de lealtad hacia la universidad. El estudio también proporciona varios conocimientos prácticos sobre el sector de la educación superior que pueden ser de utilidad para que las universidades construyan una relación fuerte y duradera con los estudiantes.

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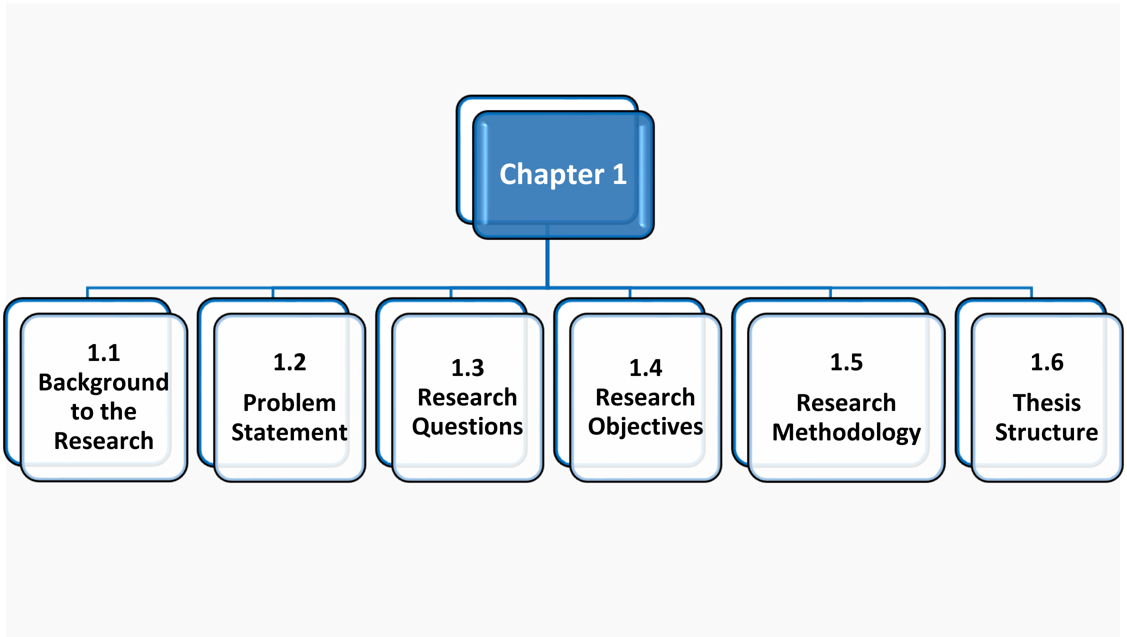
INTRODUCTION

The goal of this chapter is to lay the foundations and offer an overview of the context for the following chapters. This chapter begins by presenting an overview of the research background followed by introducing the research problem statement and the formulation of the research questions and objectives. Next, a concise overview of the research methodology is outlined. The chapter ends with presenting an overview of the structure of the thesis which gives a short summary of each of the next chapters and the topics to be discussed in each. Figure 1.1 displays the structure of the chapter.

Figure 1.1 Structure of Chapter One



1.1 Background to the Research

In today's world marketplace, higher education institutions facing intense challenges such as increasing competition due to globalization, decreasing financial support from governments, declining in the university-going population, etc. (Balaji *et al.*, 2016; Balmer *et al.*, 2020; Palmer *et al.*, 2016). Accordingly, higher education institutions are increasingly adopting marketing and branding strategies that have been proved effective in the business domain to overcome that challenges and enhance their competitiveness (Arnett *et al.*, 2003; Balaji *et al.*, 2016; Balmer *et al.*, 2020; Helgesen and Nesset, 2007; Henning-Thurau *et al.*, 2001; Frasquet *et al.*, 2012; Palmer *et al.*, 2016; Yao *et al.*, 2019). Building a committed and enduring relationship with stakeholders has become a fundamental and strategic goal for universities to survive and maintain their competitiveness (Schlesinger *et al.*, 2017; Sung and Yang, 2009). Undoubtedly that current students are one of the prominent stakeholders in the university setting, also they represent the future alumni that the university in indispensable need for their supportive behaviors and solidarity especially in the current increasingly challenging marketplace (Kim *et al.*, 2010; Parahoo *et al.*, 2013).

Organizational behavioral studies and marketing studies have documented well the pivotal role of self-identification relationship from the social identity perspective (i.e., Social Identity Theory) in strengthening the relationship between a company/organization and its stakeholders (Ahearne *et al.*, 2005; Ashforth and Mael, 1989; Bhattacharya and Sen, 2003; Dutton *et al.*, 1994; Mael and Ashforth, 1992). Social Identity Theory asserts that the individual's self-concept is comprised of a personal identity, which derives from idiosyncratic traits (such as values, goals, interest, abilities, etc.) and a social identity, which derives from his/her belongingness in a social group (such as nationality, race, occupations, demographic groups, etc.), these identities are related cognitively and generally represent the individual's answer to the question, "Who am I?" (Tajfel and Turner, 1985). Social Identity Theory has been used extensively in the organizational literature as a basis for understanding a person's psychological attachment to an organization. Drawing on Social Identity Theory Ashforth and Mael (1989) defined organizational identification as a perceived oneness with the organization where the individual defines him/herself in terms of the organization in which he or she is a member. Organizational identification occurring when a person's beliefs about the organization become self-referential or self-defining. Organizational identification has received considerable attention from organizational literature because of its positive consequences on the attitudes and behaviors toward the organization and organizational functioning (Ashforth *et al.*, 2008; Bergami and Bagozzi, 2000; Dutton *et al.*, 1994; Edwards and Peccei, 2007). This view was extended further in the context of customer-company/brand relationship (Bhattacharya and Sen, 2003; He and Harris, 2012; Stokburger-Sauer *et al.*, 2012). Accordingly, Stokburger-Sauer *et al.* (2012) defined consumer-brand identification as a consumer's perceived state of oneness with a brand. Customer identification with the company or the brand is acknowledged as "the primary psychological substrate for that kind of deep, committed, and meaningful relationships that marketers are increasingly seeking to build with their customers" (Bhattacharya and Sen, 2003, p. 76).

The favorable consequence of role self-identification relationship from the social identity perspective in the organizational and consumption domain encouraged marketing scholars to study that such relationships in the association between universities and its main stakeholders such as students and alumni (Arnett *et al.*, 2003; Balaji *et al.*, 2016; Balmer *et al.*, 2020). Mael and Ashforth (1992) is the first study that extended the concept of identification to the university setting in their seminal study of "Alumni and Their Alma Mater" and conceptualized the identification with the university as a form of organizational identification. Universities are frequently conceptualized and managed as corporates brands (Balmer *et al.*, 2020; Palmer *et al.*, 2016). Accordingly, research uses the concept of university brand identification to express students'/alumni's identification with the university. University brand identification is defined as students'/alumni's defining the self in terms of an association with the brand of their university (Palmer *et al.*, 2016). In a similar view, Balaji *et al.*, (2016) defined university brand identification from the students' perspective as a student's perceived sense of belongingness or oneness with the university. University brand identification provides an opportunity for the universities to develop committed and enduring relationships with both students and alumni (Balaji *et al.*, 2016; Balmer *et al.*, 2020; Palmer *et al.*, 2016; Yao *et al.*, 2019).

1.2 Problem Statement

Despite the importance of the university brand identification as a crucial construct to develop committed and enduring relationship with students and alumni, it has received little attention in the prior literature compared to other constructs like student satisfaction (Annamdevula and Bellamkonda, 2016; Brown and Mazzarol, 2009; Helgesen and Nesset, 2007a, 2007b; Ledden *et al.*, 2011; Schlesinger *et al.*, 2017), student trust (Bowden, 2011; Carvalho and de Oliveira Mota, 2010; Frasquet *et al.*, 2012), service quality (Annamdevula and Bellamkonda, 2016; Hennig-Thurau *et al.*, 2001; Ledden *et al.*, 2011), and perceived value (Brown and Mazzarol, 2009; Carvalho and de Oliveira Mota, 2010). Thus, the body of knowledge of university brand identification is yet in its early stage. Although recent years have witnessed the beginning of interest in university brand identification construct, research still knows little about antecedents and consequences of university brand identification and there remains a research gap about those antecedents and consequences (Balaji *et al.*, 2016; Balmer *et al.*, 2020; Palmer *et al.*, 2016; Yao *et al.*, 2019).

The nation that a consumer's identification with a brand is directly influenced by two categories of antecedents (i.e., cognitively driven antecedents and affectively driven antecedents) is well recognized in the marketing literature (Ahearne *et al.*, 2005; Bergami and Bagozzi, 2000; Bhattacharya and Sen, 2003; Han *et al.*, 2020; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012). The cognitively driven antecedents are those variables that relate to consumers' perceptions of a brand's identity and assessed in relation to how the brand identity helps them to satisfy their key self-definitional needs: self-continuity, self-distinctiveness, and self-enhancement (Bhattacharya and Sen, 2003; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012). The most predominant variables of this category of antecedents are brand–self similarity, brand distinctiveness, and brand prestige (Ahearne *et al.*, 2005; Bhattacharya and Sen, 2003; Han *et al.*, 2020; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012). The affectively driven antecedents category includes the variables that virtue of their experiential nature (Stokburger-Sauer *et al.*, 2012). In other words, this category of antecedents includes the variables that relate to the personal experience with a brand such as memorable brand experience and brand social benefits (So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012).

Extant literature in antecedents of university brand identification gave more attention to examining the role of the affective driven antecedents such as academic experience (Palmer *et al.*, 2016), social experience (Fazli-Salehi *et al.*, 2019; Palmer *et al.*, 2016), student's involvement in the university activities (Porter *et al.*, 2011), the perceived value of the university (Jiménez-Castillo *et al.*, 2013), sense of justice (Di Battista *et al.*, 2014) tuition fee and campus atmosphere (Balmer *et al.*, 2020). However, studies that researched the role of the cognitive driven antecedents on university brand identification are lacking. Additionally, extant literature reported discordant findings and does not offer a clear-cut answer about the relationship directionality between university identification and several pivot relational constructs such as student satisfaction (Fazli-Salehi *et al.*, 2019; Myers *et al.*, 2016; Trullas *et al.*, 2018; Wilkins *et al.*, 2016) and student trust (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016), which could have a determinant role to identify the key antecedents and consequences of university brand identification.

This study is proposing to include novel variables on the sphere of university brand identification (university brand attractiveness, university-self similarity university distinctiveness, and university social responsibility), joint other variables had considered in the previous studies of this field such as university prestige (Balaji *et al.*, 2016; Mael and Ashforth, 1992; Pinna *et al.*, 2018; Stephenson and Yerger, 2014a, 2014b), student satisfaction (Fazli-Salehi *et al.*, 2019; Myers *et al.*, 2016; Trullas *et al.*, 2018; Wilkins *et al.*, 2016), student trust (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016), and student loyalty (El-Kassar *et al.*, 2019; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018; Palmer *et al.*, 2016; Rodríguez *et al.*, 2019). Precisely, this study offers university-self similarity, university prestige, university distinctiveness, and university social responsibility as cognitive antecedents influencing university brand identification directly and indirectly through university brand attractiveness. In the part of the consequences of university brand identification, this study introduces university brand identification as a crucial driver of student satisfaction, student trust, and student loyalty. Also, this study investigates the mediating role of student satisfaction and student trust in the relationship between university brand identification and student loyalty. As well, this study examines the mediating role of university brand identification in the relationship between university brand attractiveness and student satisfaction, student trust, and student loyalty.

1.3 Research Questions

The research problem can be reflected in the following research questions:

1. Do university brand attractiveness, university-self similarity, university prestige, university distinctiveness, and university social responsibility (as cognitive antecedents variables) influence university brand identification?
2. Does university brand attractiveness have a mediating role in the relationship between university-self similarity, university prestige, university distinctiveness, and university social responsibility and university brand identification?
3. Do university brand identification influence student satisfaction, student trust, and student loyalty (as consequence variables)?
4. Do student satisfaction and student trust in the university have a mediating role in the relationship between university brand identification and student loyalty?
5. Does university brand identification have a mediating role in the relationships between university brand attractiveness and student satisfaction, student trust, and student loyalty?

1.4 Research Objectives

The general objective of this study is to provide a comprehensive conceptual framework for the cognitive antecedents of university brand identification and its consequences on student's attitudes and behaviors toward the university. To facilitate the investigation of the research questions and the main objective, a number of more specific objectives have been developed.

1. To examine the influence of university brand attractiveness, university-self similarity, university prestige, university distinctiveness, and university social responsibility (as cognitive antecedents) on university brand identification.
2. To examine the mediating effect of university brand attractiveness in the relationships between university-self similarity, university prestige, university distinctiveness, and university social responsibility and university brand identification.

3. To examine the influence of university brand identification on student satisfaction, student trust, and student loyalty (as consequences variables).
4. To examine the mediating effect of student satisfaction and student trust in the university in the relationship between university brand identification and student loyalty.
5. To examine the mediating effect of university brand identification in the relationships between university brand attractiveness and student satisfaction, student trust, and student loyalty.

1.5 Methodology

To achieve the proposed research objectives, a two-stage research design was employed. In the first stage, a comprehensive literature review was conducted to develop and gain initial insights and understanding of the topic under examination and to shape the base for further research. This stage involved undertaking a review of the key literature on self-identification relationship from the social identity perspective in organizational behavior studies and marketing literature followed by a comprehensive literature review of the self-identification studies in the university settings. This stage resulted in identifying the gaps and limitations of the current literature, in the light of these limitations the framework and the hypotheses of this study were developed.

After the literature review phase, a few in-depth interviews were conducted with several students to pre-test the measurement variables and determine the validity and reliability of the measurement scales. In the second stage, a conclusive descriptive research design was employed to examine the relationship between the university brand identification construct and its hypothesized antecedents and consequences. In this stage, the final questionnaire was formulated and directed to a non-probability sample of undergraduate students in the Spanish university system. A single cross-sectional research design was adopted where all the data required were collected in the same period of time. The data obtained were analyzed using the partial least squares structural equation modeling (PLS-SEM) approach to test the hypothesized relationships as explained in the chapter of the data analysis and results. The last chapter of the thesis (chapter 7) is dedicated to the discussion of the results obtained and their theoretical and managerial implications. This chapter also presents the limitations of the current study and provides suggestions and avenues for future research.

1.6 Thesis Structure

This thesis has been divided into seven chapters (see Figure 1.2) and is organized as follows. Following this introductory chapter, given that the literature of university brand identification is an extension of the self-identification relationship in both organizational behavior studies and marketing studies from the social identity perspective, the next two chapters present an overview of these studies. More precisely, Chapter Two provides a review of organizational identification literature. This chapter begins with a description of the concepts of identity and organizational identity and the origin of the identification concept. The chapter then discusses the early conceptualization of organizational identification and the social identity perspective of organizational identification which is the main theoretical foundation of the identification studies in organizational behavior studies and marketing studies. The chapter then highlights the association between personal identity and organizational identification and individuals' outcomes of organizational identification. Next, the chapter goes on to present an overview of the key literature on the antecedents and consequences of organizational identification.

Chapter Three presents a review of the key literature on consumer-company/brand identification. This chapter provides a brief discussion of the concepts of consumer identity, corporate identity, and brand identity. The chapter then goes on to discuss the conceptualization of consumer-company/brand identification, the dimensionality of consumer identification with the company/brand, the difference between organizational identification and consumer identification and present an overview of the main antecedents and consequences of consumer-company/brand identification.

Chapter Four undertakes a comprehensive review of the extant literature on university brand identification (i.e., the identification with the university brand). The results of this review are detailed, in particular how university brand identification has been conceptualized and operationalized in the extant literature and the antecedents and consequences of university brand identification that have been proposed in the current literature. Based on the review, the limitations of the existing literature and the need for further research on university brand identification are highlighted. Drawing on these limitations the second part of this chapter presents the conceptual model and highlights the rationale underlying the hypothesized relationships included in the conceptual model.

Chapter five presents a detailed explanation of the research methodology used in this study, including, the research design, the development process of the research instrument, the sampling process, the data collection procedures, and the data analysis procedures and techniques.

Figure 1.2 Structure of the Thesis

Chapter One
Introduction

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Chapter Two
Organizational Identification Literature

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Chapter Three
Consumer-Company/Brand Identification Literature

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Chapter Four
University Brand Identification Literature Review and Hypotheses Development

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Chapter Five
Research Methodology

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Chapter Six
Data Analysis and Results

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Chapter Seven
Discussion, Conclusions, and Implications

Chapter Six organizes the empirical verification of the conceptual model and hypothesized relationships. First, a detailed discussion of the procedures of data preparation and checking are presented. The chapter then presents the preliminary data analysis includes the issues related to the description of sample characteristics and profile, the descriptive analysis of the study variables, testing for multicollinearity, assessing for common method variance, tests of normality distribution of data, and reliability assessment. The chapter then moves to presents a three-stage process to assess the PLS-SEM model by evaluating the measurement model, the assessment of the structural model and the results of the hypothesized direct relationships, and advanced analyses to testing the hypothesized mediation relationships and checking the PLS-SEM results' robustness.

Chapter seven offers a detailed discussion of the results of hypotheses testing. The chapter then goes on to present the theoretical and managerial implications derived from the results achieved. The chapter also declares the study limitations and directions for future research.

CHAPTER 2

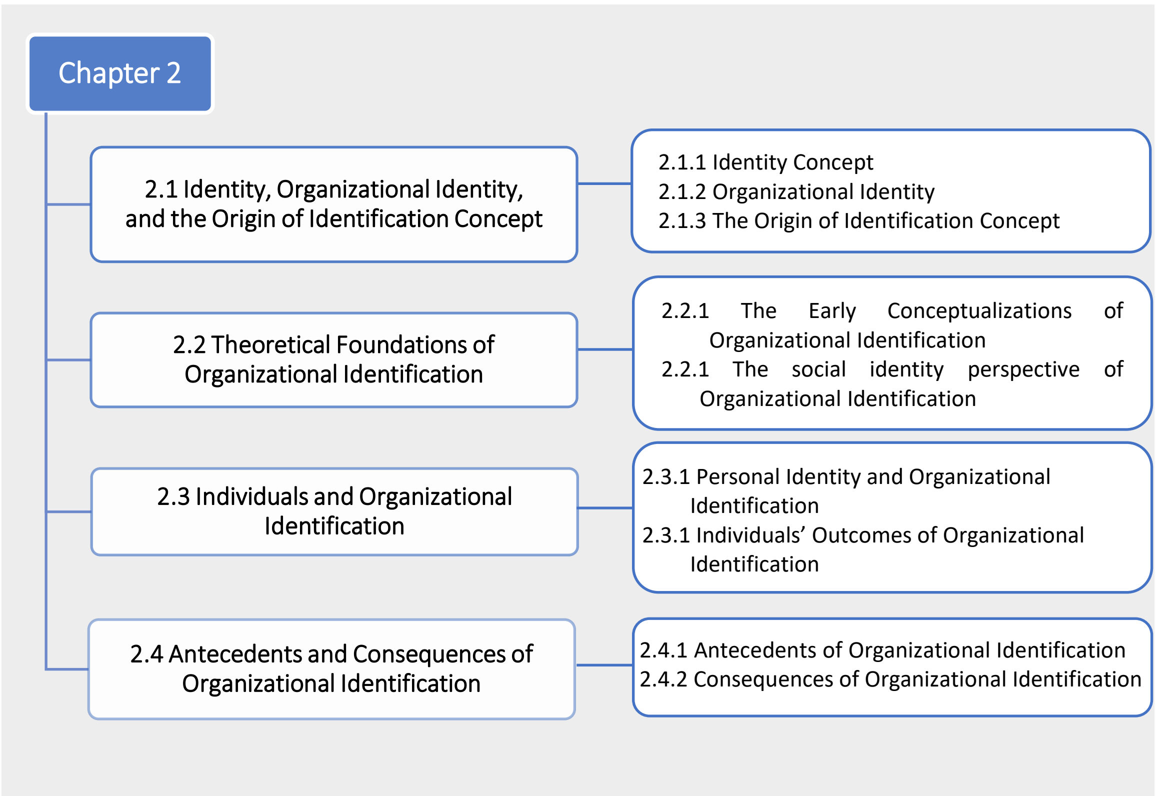
ORGANIZATIONAL IDENTIFICATION LITERATURE

- Identity, Organizational Identity, and the Origin of Identification Concept
- Theoretical Foundations of Organizational Identification Construct
- Individuals and Organizational Identification
- Antecedents and Consequences of Organizational Identification

ORGANIZATIONAL IDENTIFICATION LITERATURE

The goal of this chapter is to provide a review of organizational identification literature. The chapter is presented in four main sections. The first section describes the concepts of identity and organizational identity and then provides a review of the origin of the identification concept. The second section provides an overview of the theoretical foundation of organizational identification, this section begins with a discussion of the early conceptualization of organizational identification, followed by a discussion of the social identity perspective of organizational identification in which a brief overview of the Social Identity Theory and Self-Categorization theory are presented. Next, the association between personal identity and organizational identification and individuals' outcomes of organizational identification are presented. Finally, the key literature in the antecedents and consequences of organizational identification is reviewed. Figure 2.1 shows the structure of the chapter.

Figure 2.1 Structure of Chapter Two



2.1 Identity, Organizational Identity, and the Origin of the Identification Concept

To understand the theoretical foundations of organizational identification and its antecedents and consequences, the concepts of identity, organizational identity, and identification are important to be discussed. This section starts with a discussion of the nature of identity and organizational identity, followed by a brief discussion of the identification concept.

2.1.1 Identity Concept

Identity is "a commonly used term and thus can mean different things to different people" (Deaux, 2001). Mainly, identity involves people's explicit or implicit responses to the question: "Who are you?" (Vignoles *et al.*, 2011). This definition is not simple as seems, but in fact, it masks a substantial amount of complexity. For instance, "you" can refer to one person or group of persons. Thus identity can refer to the self-definition of one person (I am the father of two children, a Spanish person, an economic scientist, etc.), as well as the self-definition of a group of persons ranging from small groups to larger social categories (e.g., we are a family, we are Spanish, we are economic scientists) (Tajfel and Turner, 1986). Accordingly, Vignoles *et al.* (2011) argue that the response to the identity question, "Who are you?" is complex and incorporates a range of diverse but related contents and processes.

Literature differentiates between three different levels in defining identity: personal/individual level, social/collective level, and relational level (Sedikides and Brewer, 2001). Individual or personal identity refers to the aspects of self-definition at the personal level, including goals, values, and beliefs (Vignoles *et al.*, 2011). Social/collective identity refers to the aspects to define the person in terms of his/her membership in any form of social group or category, including ethnicity, nationality, religion, gender, and smaller face to face groups such as families and workgroups, etc. (Swann and Bosson, 2010; Vignoles *et al.*, 2011). Relational identity refers to one's roles that are associated with other people and relationships such as partner, parent, director, co-worker, consumer, etc. (Swann and Bosson, 2010; Vignoles *et al.*, 2011). The difference between these identities can be understood not only in terms of the contents of each identity but also in terms of processes by which identities are shaped, maintained, or altered over time (Vignoles *et al.*, 2011).

Besides these levels of the identity (person, social, and relational identity), scholars argue that material possessions (e.g., house, car, and the contents of his/her bank account) can be considered an integral part of the contents of a person's identity (e.g., Belk, 1988). Taken together, these four contents of the identity: personal traits, belongingness to social groups, personal roles, and his/her material possessions may provide the basis for an integrated operational definition of identity (Vignoles *et al.*, 2011).

2.1.2 Organizational Identity

Research on organizational identity had a massive influence on our understanding of organizational dynamics and how employees relate to their organizations. The seminal article of Albert and Whetten (1985) entitled "Organizational Identity" served as a catalyst for the propulsion of identity research into the organizational behavior literature (He and Balmer, 2007). Albert and Whetten (1985) defined organizational identity as "the central, distinctive, and enduring character of an organization". This definition has become the more accepted definition of organizational identity in the literature (Ashforth *et al.*, 2008; Dutton *et al.*, 1994).

Interestingly, He and Balmer (2007) distinguished between two terms: an organization's identity (the identity of an organization) and organizational identity (identity in an organization). According to He and Balmer (2007) organization's identity can be described as the defining characteristics of an organization, which is consistent with Albert and Whetten's (1985) definition of organizational identity. Whereas, organizational identity can be defined as the degree of salience with which an individual defines him/herself by his/her membership of the organization in given circumstances, which is a part of an individual's social identity (Ashforth and Mael, 1989).

Dutton and her colleagues (1994) in their groundbreaking work of organizational images and member identification differentiated between two terms: the organization's collective identity and perceived organizational identity. The organization's collective identity represents the set of beliefs that members share about the characteristics and attributes of the organization, while perceived organizational identity refers to "the beliefs of a particular individual organizational member about the distinctive, central, and enduring attributes of the organization" (Dutton *et al.*, 1994). Perceived organizational identity may or may not match the organization's collective identity. When the member's perception of the attributes of the organization is similar to the beliefs of the other members, in this case, there is a match between the organization's collective identity and perceived organizational identity. In contrast, the deviate between the organization's collective identity and perceived organizational identity occurs when the member's beliefs of the attributes of the organization not consistent with the beliefs of the other members. Further, Dutton *et al.* (1994) distinguished between member's perception of the organizational identity (perceived organizational identity) and member's perceptions of how outsiders see the organization which called construed external image, and argued that both perceptions are important and influencing the degree to which the member identifies with the organization.

Multiple organizational identities is another research stream in organizational identity literature (e.g., Ashforth *et al*., 2008; Bartels *et al*., 2007). Albert and Whetten (1985) distinguished between two types of organizations: (1) holographic organizations in which organizational members across subunits share a common identity; and (2) ideographic organizations in which organizational members display subunit-specific identities. Building from Albert and Whetten' (1985) study several researchers distinguished between the identity of the organization as a whole which refers to the common characteristics of the organization shared between all organization members, and sub organizational identities which refer to the common characteristics at the partial level of the organization (e.g., departments, branches, etc.) (e.g., Ashforth *et al*., 2008; Bartels *et al*., 2007; Foreman and Whetten, 2002; Reade, 2001). For example, the findings of Bartels *et al.*'s (2007) study showed that organizational members recognized three identities in their own organization: department identity, business unit identity, and the identity of the whole organization.

2.1.3 The Origin of Identification Concept

The concept of identification has its roots in psychological theories where the notion of identification presented as a vehicle or tool for persuasion and fostering 'participation in a collective social role' (Burke, 1937). Tolman (1943) referred to two types of identification: individual identification in which the individual tries to emulate another person whom they revere or are jealous (e.g., the way a child identifies with a parent) and group identification which refers to the adherence of the individual to any group of which he/she feels himself/herself a part of this group. Tolman argues that social identification relates to all persons in some manner and it is extremely influential because it makes the person tends to feel the successes or failures of the group, as his successes or failures. Foote (1951) in his work about identification as a basis for a theory of motivation defined identification as the process whereby individuals are effectively linked with their fellows in groups and suggested that it might have a compelling or inhibiting effect on various forms of behavior. In a similar vein, Freud (1922) defined identification as a process by which the individual develops ties with another person or group based upon an important emotional common quality. Kelman (1961) uses the term classical identification to describe the situation where someone tries to mimic and self-define in terms of actions, beliefs, and role of the referent target individual. Kelman (1961) formerly proposed that: "identification is a self-defining response, set in a specific relationship, and that an individual accepts influence because he wants to establish or maintain a satisfying self-defining relationship to another person or group" (p. 52). From a wider view, Pratt (1998) described identification as the extent to which individuals define themselves in terms of another individual, relationship, or group. Pratt's (1998) definition of the identification is heavily used in the literature (e.g., Cooper and Thatcher, 2010; Elbedweihy, 2014). Furthermore, Pratt (1998) distinguished between two forms of identification: identification based self-referential which occurring through "affinity," where an individual recognizes a collective or role deemed similar to one's self, and identification based self-defining which occurring through "emulation," where individual changes "to become more similar" to the collective or role.

2.2 Theoretical Foundations of Organizational Identification

This section provides an overview of the theoretical foundations of organizational identification. This section begins with a discussion of the early conceptualization of organizational identification, followed by a discussion of the social identity perspective of organizational identification in which a brief overview of the Social Identity Theory and Self-Categorization Theory are presented.

2.2.1 The Early Conceptualization of Organizational Identification

The work of Foote (1951) on the identification and motivation opened the door for applying and extended this construct within an organization, and it helps to identify what the notion of identification embodies when applied to an organization and provides a strong argument for its importance within a work context (Edwards, 2005). After Foote's paper, March and Simon (1958) formalized the construct of identification much further, and they are the first to refer to the organization as a target of identification. In several years later, Brown (1969) offered an empirical paper studying identification in organizations. Brown positioned organizational identification as a specific consequence of one's involvement with an organization and suggested that "organizational identification involves a form of relationship between the employee and the organization". This relationship comprises four basic components "attraction to the organization, consistency of organizational and individual goals, loyalty, and reference of self to organizational membership" (p. 349).

Shortly after Brown's (1969) work and depiction of organizational identification, Patchen (1970) conceptualized organizational identification as a construct involving a composite of three aspects: a perception of shared characteristics, a sense of solidarity, and support of the organization. In his clarifying of these aspects Patchen pointed that: a perception of shared characteristics refers to the individual's perception of the similarity between his/her interests and goals those of other organizational members; a sense of solidarity refers to "the individual feels a sense of belongingness to that organization"; whereas support of the organization refers to behave for organizational goals and policies in a positive manner.

Shortly after Brown's (1969) and Patchen's (1970) depiction of the organizational identification, Lee (1971) suggested that organizational identification as a construct involving a complex of three different constructs: (1) loyalty, which refers to the supportive attitudes and behaviors toward the organization such as supporting organizational objectives and defending the organization to outsiders; (2) shared characteristics, which refers to the similarity in quality with other organizational members; and (3) a sense of belongingness resulting from shared goals with others in the organization.

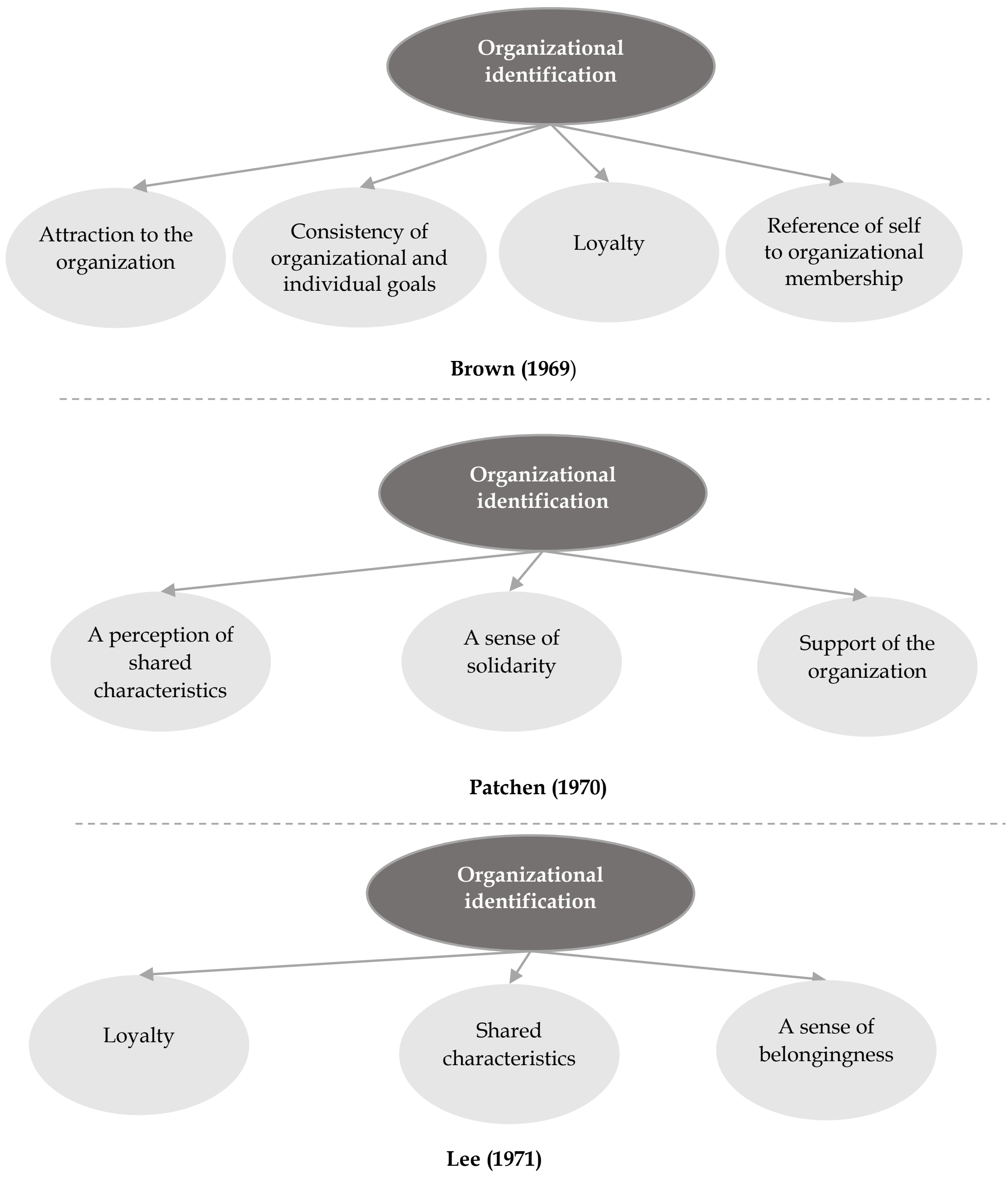
George Cheney is one of the most remarkable writers in the area of organizational identification that his writes seem to stand out over the years. Cheney (1983a, 1983b) brought a slightly different view from the writers and theorists who have written in the organizational identification area and he studied organizational identification from a communication or discourse perspective. Cheney (1983a, 1983b) defined organizational identification as "an active process by which individuals link themselves to elements in the social scene" (1983a, 342). Cheney (1983a) pointed to the paradoxical nature of organizational identification as it provides both a commonality between members and separateness from non-members. Later, Cheney and Tompkins (1987) refer to organizational identification as a process of the appropriation of identity involving the "development and maintenance of an individual's or a group's sameness or substance" (p. 5).

In summary, the early conceptualizations of organizational identification were fairly broad and involve a range of different concepts: shared characteristics, a sense of belongingness, a sense of solidarity, loyalty, attraction to the organization, and support for the organization (see Figure 2.2). Such wide conceptualizations of organizational identification are likely to address constructs beyond the notion of identification (Edwards, 2005; Elbedweihy, 2014).

2.2.2 The Social Identity Perspective of Organizational Identification

In the late of 1980s, after Ashforth and Mael (1989) outlined the relevance of social identity perspective to organizational behavior studies, organizational identification was rediscovered as a unique construct, and the number of writings on organizational identification from this perspective are increased obviously (Elbedweihy, 2014; Riketta, 2005). The social identity perspective had become the dominant perspective of studying organizational identification in the literature over the last three decades. The social identity perspective referring collectively to the use of Social Identity Theory and Self-Categorization Theory as a means of understanding the relationship between one's self-concept and the attitudes and behaviors of groups (Hogg and Terry, 2001; Hornsey, 2008). The social identity perspective (i.e., the uses of Social Identity Theory and Self-Categorization Theory) also appeared in the literature in other synonyms include the social identity approach (Ellemers *et al.*, 2004) and the extended Social Identity Theory (Hogg and Terry, 2000). The theories of Social Identity and Self-Categorization are discussed in the following as it constitutes the theoretical underpinnings for this research.

Figure 2.2 The Early Conceptualizations of Organizational Identification



2.2.2.1 Social Identity Theory

However, research in intergroup relations was ongoing since the early of 1970s (Tajfel *et al.*, 1971). Social Identity Theory is mainly associated with the work of Tajfel and Turner (1979, 1986). Social Identity Theory sets out to explain and understand the psychological basis of intergroup relations and out-group discrimination. The general assumptions of Social Identity Theory as provided by Tajfel and Turner (1979, p. 40) are:

"1- Individuals strive to maintain or enhance their self-esteem: they strive for a positive self-concept.

2- Social groups or categories and the membership of them are associated with positive or negative value connotations. Hence, social identity may be positive or negative according to the evaluations (which tend to be socially consensual, either within or across groups) of those groups that contribute to an individual's social identity.

3- The evaluation of one's own group is determined with reference to specific other groups through social comparisons in terms of value-laden attributes and characteristics. Positively discrepant comparisons between in-group and out-group produce high prestige; negatively discrepant comparisons between ingroup and out-group result in low prestige".

In brief, Social Identity Theory postulates that the individual's self-concept has two components: a personal identity, which derives from idiosyncratic attributes such as (values, goals, interest, abilities, traits, etc.), and social identity, which derives from the membership in a social group (or groups) (Tajfel and Turner, 1979). Tajfel (1978, p 63) defines social identity as "that part of an individual's self-concept which derives from his/her knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership". Tajfel's definition of social identity describes three components of identification with a group: "(1) a cognitive component, which is the knowledge of certain group membership; (2) an affective component, which describes the emotional attachment to this group; and (3) an evaluative component which is the value connotation assigned to that group" (Van Dick, 2001). Persons strive to enhance their self-concept (i.e., achieve positive self-esteem) either by enhancing their personal identity and/or social identity (Edwards, 2005). Both identities determine individuals' social behavior.

Social identity is the main concentration of Social Identity Theory. Proponents of Social Identity Theory suggest that to enhance one's social identity individuals tend to simplify the social world by categorizing people into various social groups (e.g., gender, race, nationality, etc.), and assign themselves (or are assigned by others) as being members of a particular group or category that are positively evaluated by others relative to other groups (Edwards, 2005; Tajfel and Turner, 1979). This social categorization (also called social classification) allows individuals not only to cognitively segment and organize the social environment but also offered them a means of defining and allocate themselves and others in the social environment (Ashforth and Mael, 1989; Tajfel and Turner, 1979).

2.2.2.2 Self-Categorization Theory

Self-Categorization Theory is associated with the work of Turner *et al.* (1987). Self-Categorization Theory was derived directly from the main assumptions and the same ideological and meta-theoretical perspective of Social Identity Theory (Hogg and Terry, 2001). Thus, the two theories share many of the same assumptions and the same ideological perspective, but compared with Social Identity Theory, Self-Categorization Theory places more emphasis on cognitions underlying social categorization and social comparison processes (Hornsey, 2008). According to Self-Categorization Theory individuals can categorize and compare themselves at three levels: (1) as a human being in comparison with other species which called the superordinate level (i.e., human identity); (2) as group members distinct from members of other relevant groups with called intermediate or group level (i.e., social identity); and (3) as an individual in comparison with other individuals (i.e., personal identity) (Elbedweihy, 2014; Van Dick, 2001).

In clarifying the difference between Social Identity Theory and Self-Categorization Theory, Turner (2001) states that "where Social Identity Theory deals with the implications of us versus them distinctions (in groups versus out-groups), self-categorization theory instead deals with I and me versus we and us distinctions (acting as an individual versus acting as a group member)" (p. xii). The notion of depersonalization is one of the cornerstones of Self-Categorization Theory, in which individuals come to see themselves and other social group members less as individuals and more as interchangeable exemplars of the group prototype (Hogg and Terry, 2001; Hornsey, 2008). The prototype refers to a subjective sense of the defining attributes (e.g., group attitudes) of a social group (Hornsey, 2008).

2.2.2.3 Organizational Identification from the Social Identity Perspective

Ashforth and Mael (1989) in their seminal article entitled "Social Identity Theory and the Organization" extended the Social Identity Theory to the organizational context. In their work, the authors built from Tolman's (1943) definition of group identification and used the term of social identification interchangeably with the term of group identification. Ashforth and Mael (1989) formally defined social identification as "the perception of oneness with or belongingness to some human aggregate and involves the psychologically intertwined with the fate of the group" (p.21). The authors argue that organizations are essentially social groups, and the individual's organization may provide one answer to the question, who am I? hence they claim that organizational identification is a specific form of social identification. In another study, the authors provided a more formal definition of the organizational identification construct as "a specific form of social identification where the individual defines him or herself in terms of their membership in a particular organization" (Mael and Ashforth, 1992, p. 104).

Shortly after the seminal two studies of Ashforth and Mael (1989, 1992), some further refinements of the notion of organizational identification from the social identity perspective appeared in Dutton *et al.*'s (1994) influential study entitled "Organizational Images and Member Identification". Dutton and her colleagues referred to organizational identification as the cognitive link between the individual's self-concept and perceived characteristics of the organizational identity in which the individual's self-concept contains the same characteristics as those in the perceived organizational identity. Dutton and her colleagues formally defined organizational identification as "the degree to which a member defines him- or herself by the same attributes that he or she believes define the organization" (p. 239). Additionally, Dutton and her colleagues state that "a person is strongly identified with an organization when (1) his or her identity as an organization member is more salient than alternative identities, and (2) his or her self-concept has many of the same characteristics he or she believes define the organization as a social group" (p. 239). Bergami and Bagozzi (2000) assert that while Ashforth and Mael's (1989) definition focused on the cognitive state of self-categorization, Dutton *et al.*

(1994) add further refinements of the notion of organizational identification by including the process of comparison of personal attributes with organizational attributes. In their study, Bergami and Bagozzi (2000) agreed with Ashforth and Mael's (1989) definition and argued that the process of comparison of personal attributes with organization attributes serving to be a driver of organizational identification rather than being a part of the organizational identification construct. Accordingly, the authors defined organizational identification as "the perceived overlap between one's own self-concept and the identity of the organization" (p. 565).

Drawing on the social identity perspective of organizational identification several researchers argue that the early definitions of organizational identification from this perspective such as Ashforth and Mael's (1992) and Dutton *et al.*'s (1994) definitions have conceptualized organizational identification as a primarily cognitive construct (e.g., Edwards, 2005; Edwards and Peccei, 2007; Van Dick, 2001; Van Dick *et al.*, 2004; Van Dick *et al.*, 2006). More specifically, those researchers argue that the early definitions of organizational identification from a social identity perspective focused mainly on cognitive aspects of organizational identification where the focus is on the sharing characteristics of the organization, sharing values and goals of the organization, and categorizing the self as being part of the organization as a social entity (Edwards and Peccei, 2007; Van Dick, 2001).

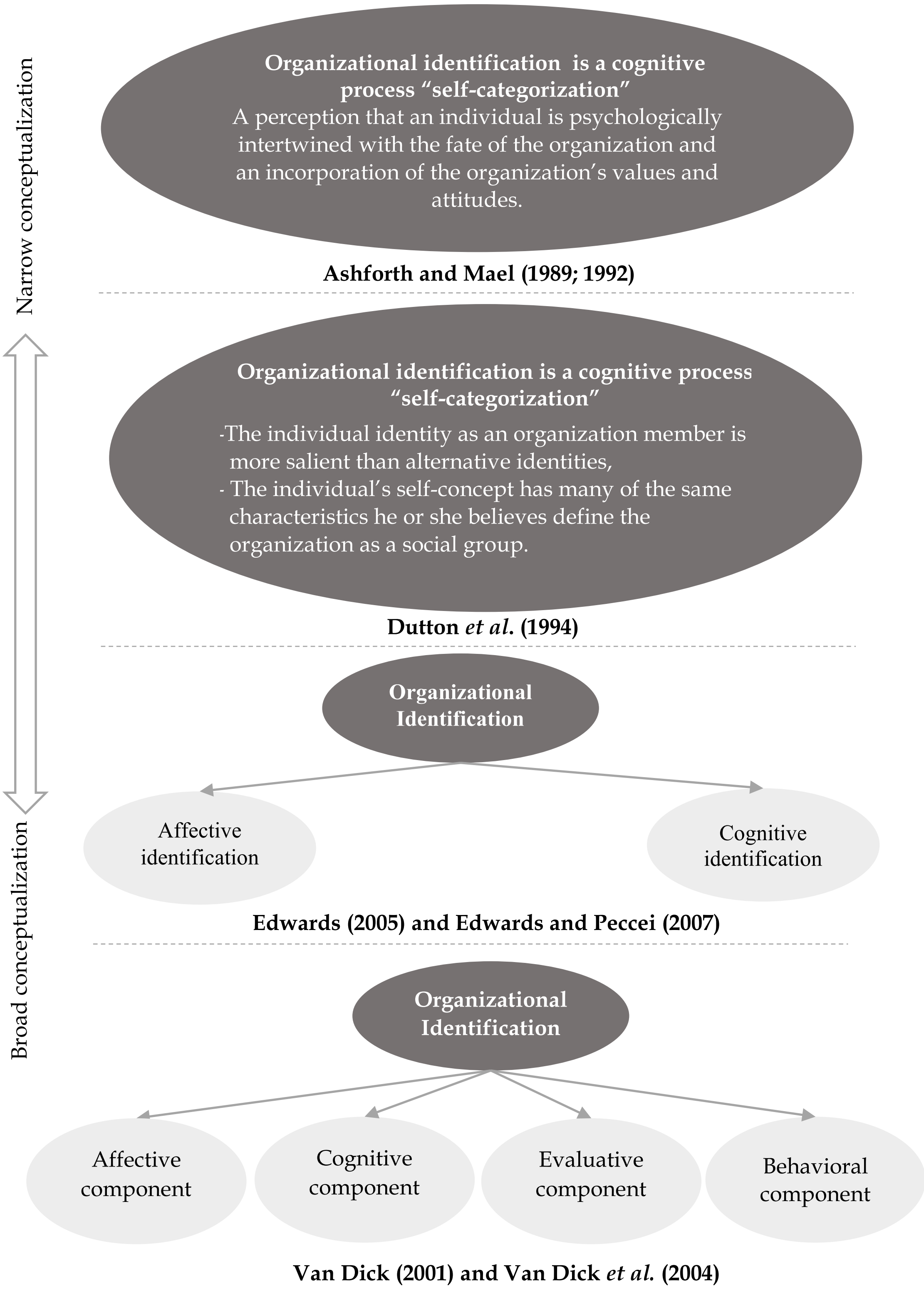
In a series of studies, Van Dick and his colleagues (Van Dick, 2001; Van Dick *et al.*, 2004; Van Dick *et al.*, 2006) argue that previous studies on organizational identification from a social identity perspective did not go far enough in taking advantage of the full scope of the theories of this perspective (i.e., Social Identity Theory and Self-Categorization Theory). Drawing on the explanatory scope of these two theories, Van Dick and his colleagues (2004) extended the conceptual boundaries of organizational identification and conceptualized organizational identification as a multidimensional construct consists of four sub-components: (1) an affective component which refers to the emotional attachment to the group; (2) a cognitive component which refers to the knowledge of being a member; (3) an evaluative component which refers to the positive evaluation of the organization; and (4) a behavioral component which refers to the actual behavior 'participation in action'.

In a similar vein, Edwards (2005), and subsequently, Edwards and Peccei (2007) claim that focusing only on the cognitive aspect of organizational identification deprives this construct of a large part of its explanatory power and does not reflect the full scope of the social identity perspective. Therefore, these studies defined organizational identification as a "psychological linkage between the individual and the organization whereby the individual feels a deep, self-defining affective and cognitive bond with the organization" (Edwards, 2005, p. 225). Edwards and Peccei (2007) suggested three key subcomponents which, when collectively considered, define the strength or depth of the individual's affective and cognitive bond with his/her organization: "(1) the categorization of the self and self-labeling which refers to the process by which individuals categorize themselves as members of the organization as a social category and label themselves as organizational members; (2) the integration of goals and values which refers to the extent to which individuals share the values and goals of the organization; and (3) the affective attachment to the organization which refers to a sense of attachment and belonging to the organization". Thus, "the more individuals view and define themselves in terms of their organizational membership, feel that they share the values and goals of the organization, and feel a sense of attachment and belonging to their employing organization, the more strongly they can be said to identify with the organization" (Edwards and Peccei, 2007). Figure 2.3 summarizes the different conceptualizations of organizational identification from the social identity perspective.

In summary, organizational identification has been conceptualized and operationalized in various ways in the literature, ranging from fairly broad to quite narrow definitions. The broad definitions like the early definition of organizational identification (e.g., Brown, 1969; Lee, 1971; March and Simon 1958), in which the conceptualization and operationalization of organizational identification involve a range of different concepts beyond the notion of identification such as; shared characteristics, a sense of belongingness, attraction to the organization, support for the organization, and loyalty for the organization (Edwards, 2005; Elbedweihy, 2014). The relatively narrow conceptualizations tend to follow the social identity perceptive (e.g., Ashforth and Mael, 1989; Dutton *et al.*, 1994; Mael and Ashforth, 1992), in which organizational identification is viewed as self-definition in terms of organizational membership. Consequently, the expected antecedents and consequences of organizational identification differ significantly depending on the conceptualization and operationalization used. In support, Riketta (2005) in his study of "A Meta-Analysis of Organizational Identification Studies" reported that the expected correlates of organizational identification differ significantly depending on the measure used to capture organizational identification.

However, the multiplicity of the definitions and measures of organizational identification in the literature, Ashforth and Mael's (1989; and, subsequently, Mael and Ashforth, 1992) definition and scale of organizational identification is the most common and popular definition and measure of this construct in the literature (e.g., Afsar *et al.*, 2018; Ashforth *et al.*, 2008; Campbell and Im, 2014; Edwards and Cable, 2009; Homburg *et al.*, 2009; Lythreatis *et al.*, 2019; Malhotra *et al.,* 2020; Peng *et al.*, 2020; Sluss *et al.*, 2008).

Figure 2.3 The Conceptualizations of Organizational Identification from the Social Identity Perspective



2.3 Individuals and Organizational Identification

This section presents two issues the associations between personal identity and organizational identification, followed by a discussion of the individuals' outcomes of organizational identification.

2.3.1 Personal Identity and Organizational Identification

Personal identity is one of the core foundational concepts helping to explain why individuals join organizations and why they leave willingly, why they approach their job in the manner they do, and why they communicate with others in the manner, they do (Ashforth *et al.*, 2008). Identity and identification can be seen as "root constructs" (Ashforth *et al.*, 2008, p. 334). Haslam and Ellemers (2005) state that to identify with the organization one must have a personal identity as an organizational member. Dutton *et al.* (1994) argue that organizational identification occurs "when a person's self-concept contains the same attributes as those in the perceived organizational identity" (p. 239). In a similar vein, Pratt (1998) argues that the integration between personal identity and organizational identification can be manifested in: the personal identity is concerned with the question "Who am I?", whereas organizational identification asks How do I come to know who I am in relation the organization in which I participate)? (p. 171). Addiationaly, Pratt (1998) distinguished between two types of organizational identification: organizational identification through affinity (where the individual recognizes congruence with the organization's identity) and organizational identification through emulation (where individual changes to become more congruent with the organization's identity).

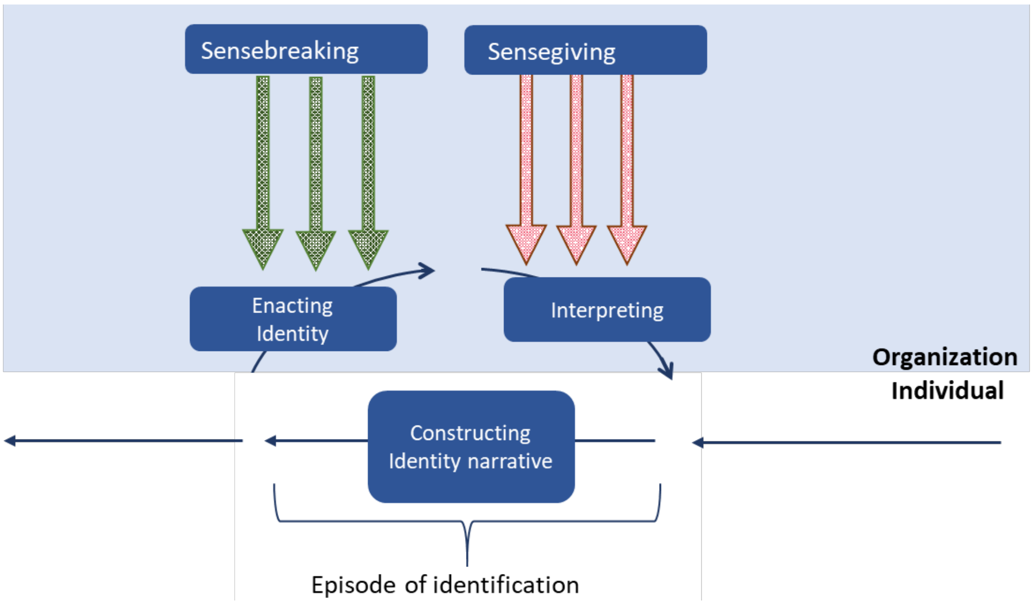
Ashfoth *et al.* (2008) offered useful interpretation to the association between the two constructs (i.e., personal identity and organizational identification), as they describe organizational identification as a process, in which the personal identity of an individual's interplay with the identity of the organization. They mentioned two processes (i.e., sense breaking and sense giving), to provide a sketch of the general dynamics undergirding the organizational identification process (see Figure 2.4). Sensegiving is defined as "attempting to influence the sensemaking and meaning construction of others towards a preferred redefinition of organizational reality" (Gioia and Chittipeddi, 1991, p. 442). While sense breaking occurs when a person's process of sensemaking of organizational reality is disrupted by contradictory evidence and highlights the ways organizational members must break down sense in order to give sense (Giuliani, 2016). Drawing on Pratt's (1998) distinction of organizational identification through affinity and organizational identification through emulation, Ashfoth *et al.* (2008) argued that organizational identification through affinity relies on sense giving process because the situation likely reinforces the individual's identity rather than revises it. In contrast, organizational identification through emulation requires sense breaking and sense-giving processes and induces multiple iterations of the cycle because the situation requires revises the individual's identity to overlap and congruence with the organization's identity (see Figure 2.5).

2.3.2 Individuals' Outcomes of Organizational Identification

Organizational identification is assumed to have several potentially important benefits both for the organization (the outcomes for the organizational identification for the organization will be discussed in length in section 2.4.2) and for organizational members themselves. The more important benefit of the identification for individuals is to satisfy the human need of a sense of belonging "being part of something greater" (Ashforth *et al.*, 2008; Ashforth and Mael, 1989).

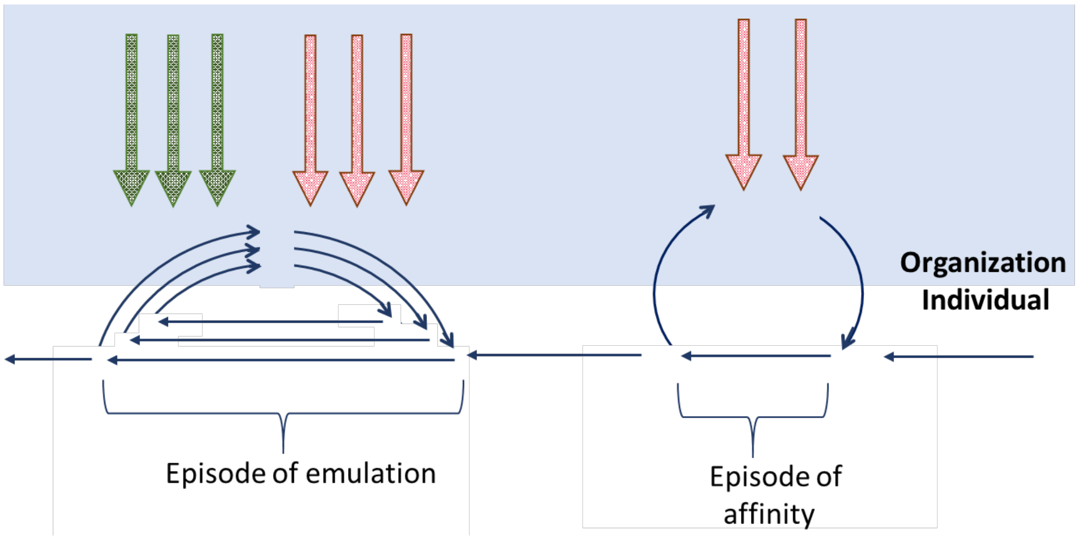
Individuals' outcomes of organizational identification can be manifested in answer to the question of "Why do individuals identify in organizations?" (Ashforth *et al.*, 2008). According to social identity preceptive (i.e., Social Identity Theory and Self-Categorization Theory) self-enhancement (thinking of themselves in a positive light) is the basic motive for individuals to identifying with a group (Tajfel and Turner, 1979; Turner *et al.*, 1987). In other words, individuals pursue to achieve or maintain positive self-esteem a positive view of themselves by positively distinguishing their in-group from related outgroups on some valued dimension (Haslam and Ellemers, 2005, p. 43). Thus, a person seeks to identify with the organization because the prestige associated with the organization is reflected in his/herself as an organizational member (the idea of reflected glory Cialdini *et al.*1976).

Figure 2.4 A Process Model of Identification



Source: Adapted from Ashfoth et al. (2008, p. 341)

Figure 2.5 Episodes of Emulation Organizational Identification and Affinity Organizational Identification



Source: Adapted from Ashfoth et al. (2008, p. 341)

Generally, Pratt (1998) argues that individuals' motivations to identify are to satisfy the human needs for psychological safety (avoid situations that threaten their self-view), affiliation (being part of something greater), and uncertainty reduction (associated with interacting in new environments). Ashforth *et al.* (2008, p.335) stated six self-related motives for identification: "(1) self-enhancement (thinking of themselves in a positive light); (2) self-knowledge (locating the self within a context to define the self); (3) self-expression (enacting valued identities); (4) self-coherence (maintaining a sense of wholeness across a set of identities); (5) self-continuity known as self-verification or self-affirmation (maintaining a sense of wholeness across time), and (6) self-distinctiveness (valuing a sense of uniqueness)".

2.4 Antecedents and Consequences of Organizational Identification

The notion of organizational identification is seen as essential to the analysis and understanding of the link between individuals and their employing organization (Ashforth *et al.*, 2008; Ashforth and Mael, 1989; Dutton *et al.*, 1994). Furthermore, organizational identification is thought to have a variety of favorable consequences for the organization such as create a more cohesive work atmosphere and increasing employees' motivation to achieve the organization's goals and objectives (Ashforth *et al.*, 2008; Edwards and Peccei, 2007). Accordingly, studying the antecedents and consequences of organizational identification received substantial interest from organizational scholars over the past three decades (e.g., Ashforth *et al.*, 2008; Ashforth and Mael, 1989; Kim *et al.*, 2020; Teng *et al.*, 2020). The next sections present a detailed discussion of the previous key studies on the antecedents and consequences of organizational identification.

2.4.1 Antecedents of Organizational Identification

This section presents a summary of the key antecedents of organizational identification that have been proposed in the prior literature. Table 2.1 offers a summary of the previous key studies on organizational identification. Table 2.1 starts with presenting the name of the author/s and the year of the study. Next, the sample on which the study relied is presented. Then, the main antecedents that have been proposed or investigated were presented align with the main results associated with these antecedents.

Indeed, the two conceptual studies of Ashforth and Mael (1989) and Dutton *et al.* (1994) are the most influential studies on the antecedents and consequences of organizational identification. In other words, it can be said that these two studies are the primary reference to the studies in this area. Ashforth and Mael (1989) suggested a set of antecedents to organizational identification include perceived organizational distinctiveness, perceived organizational prestige, the salience of the out-group, and several factors that are normally associated with group formation (interpersonal interaction, similarity, liking, proximity, shared goals or threat, common history, and so forth). Dutton and her colleagues (1994) gathered the antecedents of organizational identification in two main groups of antecedents: one based on the member's beliefs about what is distinctive, central, and enduring about his or her organization (i.e., perceived organizational identity) and the other based on the member's beliefs and perceptions of how outsiders think about the organization (i.e., construed external image).

Ashforth *et al.* (2008, p. 340) suggest two perspectives of the research in the antecedents of organizational identification: a top-down process perspective which includes antecedents assessing how organizations influence individuals (such as organizational distinctiveness, organizational prestige, organizational support, and communication climate) and a bottom-up perspective which includes antecedents addressing the thoughts, feelings, and actions an individual uses to negotiate the boundaries between the self and organization (such as sentimentality, organizational tenure, and the person-organization fit.

In agreement with the main studies on the antecedents of consumer identification (e.g., Ahearne *et al.*, 2005; Bergami and Bagozzi, 2000; Bhattacharya and Sen, 2003; Han *et al.*, 2020; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012) the researcher suggests that antecedents of organizational identification could be categorized into two main groups of antecedents: cognitively driven antecedents category and affectively driven antecedents category. The cognitively driven antecedents are those variables that relate to organizational member' perceptions of the organization identity and assessed in relation to how it helps them to satisfy their three basic self-definitional needs: self-continuity, self-distinctiveness, and self-enhancement (Bhattacharya and Sen, 2003; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012). This category of antecedents includes variables of perceived organizational prestige, perceived organizational distinctiveness, and self-similarity.

On the other side, the affectively driven antecedents' category includes the variables that virtue of their experiential nature. In other words, this category of antecedents includes the variables that relate to the personal experience with the organization such as perceived organizational support (Edwards, 2009; Edwards and Peccei, 2010; Gibney *et al.*, 2011; He *et al.*, 2014; Reade, 2001; Sluss *et al.* 2008), empowerment (Ertürk, 2010; Nowak, 2020), and communication climate (Smidts *et al.*, 2001; Teng *et al.*, 2020).

Regardless of the different attempts to group the antecedents of organizational identification into main categories, the next sections present a brief discussion of the most common antecedents of organizational identification as illustrated in Table 2.1.

2.4.1.1 Perceived Organizational Prestige

Dutton and her colleagues (1994) distinguished between two different uses of the term "organizational image" according to members' relationship with the organization (inside and outside members). Thus, they differentiate between the concept of "organizational reputation" and the concept of "construed external image of the organization". According to the authors "organizational reputation refers to outsiders' beliefs about what distinguishes an organization; construed external image captures internal members' own assessment of these beliefs" (Dutton *et al.*, 1994, p. 249). The construed external image construct has been addressed in the organizational behavior literature under different synonyms such as organizational prestige (Bergami and Bagozzi, 2000; Reade, 2001), perceived external prestige (Bartels *et al.*, 2007; Fuller *et al.*, 2006; Smidts *et al.*, 2001), and perceived organizational prestige (Bhattacharya *et al.*, 1995). For instance, Bergami and Bagozzi (2000) defined organization prestige as "the perception a member of the organization has that other people, whose opinions are valued, believe that the organization is well regarded (e.g., respected, admired, prestigious, well-known)" (p. 562). Perceived organizational prestige depends on individuals' interpretations and assessments of the organization's prestige according to their knowledge, word of mouth, the opinions of their reference groups, etc. Thus, perceived organizational prestige is commonly treated as an individual construct, because the perception of the organization's prestige may different among the members of the same organization (Smidts *et al.*, 2001).

From the conceptual point of view, Ashforth and Mael (1989) and Dutton *et al.* (1994) suggested that perceived organizational prestige is assumed to associates positively with the identification with the organization. As shown in Table 2.1 this relationship has been empirically supported in various organizational settings such as catering service organization (Bergami and Bagozzi, 2000), police organization (Bartels *et al.*, 2007), health services organizations (Dukerich *et al.*, 2002; Fuller *et al.*, 2006), and different customer services (e.g., bank, utilities) and manufacturers of consumer goods organizations (Kim *et al.*, 2010; Smidts *et al.*, 2001). These studies demonstrated that when individuals believe their organization is held in high esteem by external parties, they tend to more strongly identify with the organization. The basic argument to support this relationship is to satisfy the need to enhance self-esteem (Hogg *et al.*, 1995). Thus, perceived external prestige answers the question 'what do outsiders think of me because I belong to this organization?' (amI valued?) (Fuller *et al.*, 2006, p. 819). This idea is consistent with the idea of "basks in the reflected glory" (Cialdini *et al.*, 1976).

2.4.1.2 Perceived Organizational Distinctiveness

It has long been recognized in the identity literature that people strive to distinguish themselves from others in interpersonal contexts to feel good about themselves and enhances their self-esteem (Tajfel and Turner, 1986). Thus, people are inclined more to link their identities with entities (e.g., persons, groups, or organizations) that they perceive as more distinctive than others to distinguish themselves (Ashforth and Mael, 1989; Dutton *et al.*, 1994).

Perceived organizational distinctiveness refers to the individual's perceptions of the distinctiveness of the organization's values and practices in relation to those of comparable organizations (Ashforth and Mael, 1989). Additionally, Ashforth and Mael (1989) proposed that perceived organizational distinctiveness is one of the anticipated antecedents variables of organizational identification. In the same vein, Dutton *et al.* (1994) suggested that the individual's beliefs of the distinctiveness of the organizational identity are a part of the individual's perceived organizational identity and are supposed to associates positively with the identification with the organization. As illustrated in Table 2.1, this relationship has been demonstrated in several empirical studies (e.g., Griepentrog *et al.*, 2012; Reade, 2001).

2.4.1.3 Self-Similarity

There are a large and growing body of organizational literature focusing on studying the similarity and the matches between organizational identity and the personal identity of the organizational members, because of the favorable consequences of this similarity on members' attitudes and behaviors toward the organization (Cable and DeRue, 2002; Cinar, 2019; Dutton *et al.*, 1994; Edwards and Cable, 2009; O'Reilly *et al.*, 1991; Seggewiss *et al.*, 2019). Dutton *et al.* (1994) argue that when the individual self-concept and perceived organizational identity are similar (i.e., organization-self similarity), a member is drawn to the organization because it provides easy opportunities for self-expression. Thus, Dutton and her colleagues (1994) proposed that the consistency between self-defining attributes and perceived organizational attributes, as a part of an individual's perceived organizational identity, is assumed to relate positively with the identification with the organization.

Previous research on the similarity between organizational identity and personal identity of the organizational members gave more concentration on the similarity and the matches in the values. This matches and similarity in the values also known as person-organization fit (Cable and DeRue, 2002; Cinar, 2019; O'Reilly *et al.*, 1991; Seggewiss *et al.*, 2019), value congruence (Edwards and Cable, 2009; Seggewiss *et al.*, 2019), and perceptions of fit (Griepentrog *et al.*, 2012). For instance, Cable and DeRue (2002) defined person-organization fit as the perceptions of the congruence between an employee's personal values and an organization's values. Edwards and Cable (2009) defined value congruence as the match between an employee's own values and his or her perceptions of the organization's values. As Table 2.1 shows, previous studies reported discrepant findings in the relationship between the similarity between individuals' values and organization' values and members' identification with the organization. Whereas several studies supported the significance of the positive association between the two constructs (Cable and DeRue, 2002; Cinar, 2019; Griepentrog *et al.*, 2012), others failed to support this relationship (Charbonnier-Voirin *et al.*, 2017).

2.4.1.4 Corporate Social Responsibility (CSR)

CSR is a complex construct because it could be conceptualized and operationalized in different ways and from different viewpoints. For instance, Carroll (1991) focused on a society's viewpoint of the social responsibility of organizations and defined CSR as the expectations of the society to have from the organizations at a given point in time. Carroll (1991) conceptualized CSR as a multidimensional construct made up of four dimensions of expectations; economic, legal, ethical, and discretional (or philanthropic). Barnett (2007) focused on a corporate viewpoint and defined CSR as "a discretionary allocation of corporate resources towards improving social welfare that serves as a means of enhancing relationships with key stakeholders" (p. 801). Brown and Dacin's (1997, p. 68) defined CSR as "the organization's status and activities related to its perceived societal obligations". This definition has become one of the more accepted definitions of CSR in the literature (e.g., Currás-Pérez, 2009; Currás-Pérez *et al.*, 2009).

Organizational behavior literature in CSR focuses mainly on organizational members' perceptions of the social image of their organization and documented well its valuable consequences on employees attitudes and behaviors toward the organization such as the organizational commitment (Collier and Esteban, 2007; Peterson, 2004), organizational trust (De Roeck and Delobbe, 2012), perceived external prestige of the organization (De Roeck and Delobbe, 2012; Kim *et al.*, 2010), pride in membership (Lythreatis, 2019), organizational attachment (Lee *et al.*, 2013), perceived corporate performance (Lee *et al.*, 2013), organizational identification (Kim *et al.*, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019; Nguyen, 2020). Previous organizational behavioral studies in the linkage between CSR and organizational identification can be summarized in the following three perspectives:

- The first perspective focuses on organizational members' perceptions of how the social role image of their organization is viewed by the outsiders, which could be named the external perception. According to this perspective when the members perceive their organization to have a favorable image among the outsiders as a result of its CSR practices, they are more likely to identify with the organization to enhance their sense of self-esteem (Jones, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019; Nguyen, 2020). Several scholars argued that organizational members' perception of the social image of the organization is part of their overall perception of the external prestige of the organization that was previously discussed (e.g., Kim *et al.,* 2010).

- The second perspective focuses on organizational members' perceptions of the social role of the organization within the organization, which could be called internal perception. Studies from this perspective differentiate between two constructs CSR associations and CSR participation (Brown and Dacins, 1997; Kim *et al.,* 2010; Peterson, 2004). CSR associations also called perceived CSR, which refers to employees' perceptions of the company identity about the importance of the societal issues, whereas CSR participation refers to employees' actual participation in CSR initiatives and activities (Brown and Dacins, 1997; Kim, 2010; Peterson, 2004). Kim *et al.* (2010) studied the impact of both CSR associations and CSR participation on organizational identification. The study findings supported only the direct influence of CSR participation on employees' organizational identification, whereas perceived external prestige fully mediates the relationship between CSR associations and employees' organizational identification. In support of these findings, Kim and his colleagues (2010) mentioned that through participation in CSR activities, employees' will experience higher morale and self-esteem, which will lead to develop and strengthen their identification with the organization.
- The third perspective focuses on the overall perception of the organizational members of CSR. For instance, Carmeli *et al.* (2007) demonstrated that when the organization perceived to have a favorable image in terms of its social responsibility externally (i.e., how it viewed by externals) and internally (in terms of the treatment of employees), organizational identification should be at a maximum.

2.5.1.5 Perceived Organizational Support (POS)

Organizational Support Theory (Eisenberg *et al.*, 1986; Eisenberger *et al.*, 2001) postulates that "organizational members form a general perception concerning the extent to which the organization values their contributions and cares about their well-being", which refers to perceived organizational support (POS). POS has gained increasing attention in the organizational behavior literature because of its favorable consequences on members' attitudes and behaviors toward the organization (Edwards, 2009; Edwards and Peccei, 2010;

Eisenberger *et al.*, 2001; Kurtessis *et al.*, 2017). For instance, Eisenberger *et al.* (2001) drawing on the reciprocity norm, which postulates when one person treats another well, the other person obliged to return the favorable treatment (Gouldner, 1960), and suggests that POS would elicit organization members' felt obligation to help the organization to achieve its goals and objectives and care about its welfare. Moreover, Kurtessis *et al.*'s (2017) meta-analytic evaluation of organizational support theory indicated that amongst the valuable consequences of POS that have been documented in the literature its positive association with affective organizational commitment, job involvement, job satisfaction, work-family balance, employee's in-role behaviors, and employee's extra-role behaviors. As well, its negative association with several unfavorable outcomes such as job stress, burnout, emotional exhaustion, low turnover intention, absenteeism, and work-family conflict (Kurtessis *et al.*, 2017).

As illustrated, in Table 2.1 the positive association between POS and the identification with the organization has been documented in several studies (Edwards, 2009; Edwards and Peccei, 2010; Gibney *et al.*, 2011; He *et al.*, 2014; Reade, 2001; Sluss *et al.,* 2008). These studies demonstrated that the more the organizational members perceive their organization values their contribution and cares about their well-being, the more they tend to identify with the organization and incorporating organizational membership into their social identity.

2.4.1.6 Organizational Trust

Trust exists when one partner confident in the reliability and integrity of the exchange partner, and it should be considered essential to any relational exchange (Morgan and Hunt,1994). Mayer and his colleagues (1995, p. 712) defined the concept of trust as "the willingness of one party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party". Consistent with Mayer *et al.*'s (1995) definition Rousseau *et al.* (1998, p. 395) conceptualized trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another." According to Mayer and his colleagues (1995), the trusting relationship between the exchange partners, namely, a trusting party (i.e., trustor) and a party to be trusted (i.e., trustee) is based on a set of characteristics: ability, benevolence, and integrity. Ability corresponds to the trustor's perceived competencies expertise of the trustee, benevolence corresponds to the trustor's belief that the trustee has the intention to 'do good' and not guided by egocentric or opportunistic motives, and integrity captures the sense of the trustor's in the trustee's honesty, openness, fairness, and/or consistency (Campbell and Im, 2014; De Roeck and Delobbe, 2012; Mayer *et al.*, 1995). Thus, a good trusting relationship has been argued to decrease the perception of risk in the parts of the relationship and reduce the uncertainty, which in turn enhances the cooperation between them (De Roeck and Delobbe, 2012).

In organizational settings, organizational trust has long been identified as a crucial aspect of a successful organization (Ertürk, 2010). Organizational behavior literature well documented the positive consequences of trust on attitudes, perceptions, behaviors, and performance outcomes within organizational settings (see Dirks *et al.*, 2001, for an excellent review of the role of trust in organizational settings). Table 2.1 shows that also the positive association between organizational trust and the identification with the organization has been demonstrated in several studies (Campbell and Im, 2014; De Roeck and Delobbe, 2012; Edwards and Cable, 2009).

2.4.1.7 Other Antecedents

Besides the antecedents of organizational identification that have discussed above, as Table 2.1 shows, prior literature also revealed of other variables served as antecedents of organizational identification such as identification with sub-identities with the organization (e.g., workgroup, business unit, department) (Bartels *et al.*, 2007), transformational leadership (Buil *et al.*, 2019; Walumbwa *et al.*, 2008), organizational pride (De Roeck *et al.*, 2016; Jones, 2010; Lythreatis *et al.*, 2019), supervisor interaction (Campbell and Im, 2014), psychological empowerment (Ertürk, 2010; Nowak, 2020), perceived respect (status within the organization) (Fuller *et al.*, 2006), and communication climate (Smidts *et al.*, 2001; Teng *et al.*, 2020). These antecedents were not discussed in detail because they received less attention in the literature. Also, because these antecedents do not relate directly and do not offer any support to the hypothesized relationships in this study as presented in chapter four.

Table 2.1 Summary of the Previous Key Studies in the Antecedents of Organizatio

Author/s (Year)	Sample	Antecedent variable/s
Ashforth and Mael (1989)	–	– Perceived organizational dist – Perceived organizational pre – The salience of the out-group – Group formation factors su similarity, liking, proximity, history, and so forth" (*)
Dutton *et al.* (1994)	–	*Perceived organizational identity* – The attractiveness of the pe – Consistency between self-c organizational attributes (*) – The distinctiveness of the or – The more self-esteem organizational identity (*) – The level of contact with the and duration) (*) *Construed external image of the org* – The attractiveness of the organization (*)
Bergami and Bagozzi (2000)	409 employees from the Camst company in Italy.	– Organization prestige (S) – Organizational stereotypes " distinctive, central, and endu (S)

Author/s (Year)	Sample	Antecedent variable/s
Reade (2001)	317 employees from Britcorp company, a large MNC in the consumer products industry. The data were collected from Indian and Pakistani subsidiaries (122 from the Pakistani subsidiary and 195 from the Indian subsidiary).	– The prestige and distinctiven – The support and appreciatio – Perceived opportunity for ca (S) – Perceived nationality access t – A sense of shared fate with th – Positive interpersonal relatio – A preference for cultural sim
Smidts *et al.* (2001)	In a total of 1276 employees from three different organizations (402 employees of customer services organization, 482 employees of a nationally operating utility company, and 392 employees of a bank).	– Communication climate (S) – Perceived external prestige (S
Cable and DeRue (2002)	187 employees from different organizations in the southeast of the United States.	– Person– organization fit perc
Dukerich *et al.* (2002)	1504 physicians affiliated with three health care systems in the United States.	– Construed external image (S) – A perceived organizational id
Fuller *et al.* (2006)	205 of healthcare employees from three different sources (subordinates, supervisors, and company records) in the United States.	– Perceived prestige (status of – Perceived respect (status wit
Bartels *et al.* (2007)	314 members of a regional police organization in the Netherlands.	– Workgroup identification (S) – Business unit identification (S – Department identification (S) – Perceived external prestige (S

Author/s (Year)	Sample	Antecedent variable/s
Carmeli *et al.* (2007)	161 employees from four companies competing in the electronics and media industry in Israel.	– Favorable perceived organiz corporate social responsibility – Favorable perceived organ market and financial perform
Van Dick *et al.* (2007)	*Sample 1:* 367 schoolteachers and 60 headteachers from all German school types and eight different federal states. *Sample 2:* 233 schoolteachers and 22 headteachers from two different German school types and four different federal states *Sample 3:* 314 travel agents in 127 German travel agencies and their leaders (managers).	– Leader identification (S) in th
Larson *et al.* (2008)	574 sales representatives working with a large direct selling firm in the United States.	– Construed customer attitud campaign (S)
Sluss *et al.* (2008)	1197 participants from a large multi-national organization headquartered in the southeastern of the United States.	– Perceived organizational sup – Relational exchange quality perceived organizational sup
Walumbwa *et al.* (2008)	437 employees of six different banks in two different states in the United States.	– Transformational leadership
Edwards (2009)	*Study 1:* 492 employees working within the context of the UK National Health Service, specifically at an NHS Trust in the south of England.	– Perceived organizational sup – Perceptions of the key HR-r directly and indirectly via p

Author/s (Year)	Sample	Antecedent variable/s
	<u>*Study 2:*</u> 563 employees from the same organization as study 1 but the data were collected 13 months later.	
Edwards and Cable (2009)	997 employees in "a wide range of job types and levels in four water treatment agencies in the United States".	– Communication "refers to th through formal and informal members" (NS) – Attraction "refers to mutua organizational members" (S) – Predictability "refers to the beliefs about how others wil (NS) – Trust "refers to the willingne of another" (S)
Edwards and Peccei (2010)	736 employees from a UK National Health Service (NHS) Trust.	– Perceived organizational sup
Ertürk (2010)	518 blue-collar employees employed in shipyards in Turkey.	– Psychological empowerment – Perceived organizational sup
Jones (2010)	162 employees from Green Mountain Coffee Roasters (GMCR), a publicly-traded company in the United States.	– CSR manifested in employee – Organizational pride (S)
Kim *et al.* (2010)	120 employees from three service firms and two manufacturers of consumer goods in Korea.	– CSR associations (NS) – CSR participation (S) – Perceived external prestige (S

Author/s (Year)	Sample	Antecedent variable/s
Gibney *et al.* (2011)	*Sample 1:* 199 participants over the age of 18 and who work full time in the United States. *Sample 2:* 145 responses from an Internet survey that was conducted across the United States.	– Perceived organizational sup
De Roeck and Delobbe (2012)	155 employees of a petrochemical organization in Belgium.	– Perceived external prestige (N – Employee trust (S)
Griepentrog *et al.* (2012)	669 applicants to the United States military at 2 intervals, separated by 3 months.	Perceived organizational identity – Organizational prestige (S) – Organizational distinctivenes – Consistency with one's own v
Campbell and Im (2014)	10222 employees from agencies of 100 or more employees throughout Australia.	– Supervisor interaction (S) – Senior leader interaction (S) – Organizational trust (S) – Workgroup cooperation (NS)
He *et al.* (2014)	502 white-collar employees from 17 different Vietnamese organizations.	– Perceived organizational sup – Employee investment "refer invest consciously or unconsc (S)
De Roeck *et al.* (2016)	126 employees at a large European utility company active in the energy sector in the United States.	– Perceived CSR (indirect) – Perceived external prestige (i – Organizational pride (S)

Author/s (Year)	Sample	Antecedent variable/s
		The results supported the su external prestige and organiza between perceived CSR and org
Charbonnier-Voirin *et al.* (2017)	308 employees from a different organization working in diverse industry sectors in France.	– Value congruence (NS) – Employer brand (S) The results also suggested that e influence of value congruence on
Afsar *et al.* (2018)	298 employees from "diverse industry sectors (coal generating power industry, food, chemical, and pharmaceutical industries) in Pakistan".	– Perceived CSR (S)
Buil *et al.* (2019)	323 frontline hotel employees from different Spanish hotels.	– Transformational leadership
Cheema *et al.* (2019)	374 employees from diverse industry sectors in Pakistan.	– CSR perceptions (S)
Cinar (2019)	221 employees working in different sectors in Turkey.	– Person organization fit (S) – Organizational attractiveness
Lythreatis *et al.* (2019)	<u>*Sample 1*</u>: 260 employees "working for small- and medium-sized enterprises in the United Arab Emirates". <u>*Sample 2*</u>: 268 employees" working for small- and medium-sized enterprises in Lebanon".	– Participative leadership (S) ir – CSR perceptions (S) in all sar – Pride in membership (S) in al

Author/s (Year)	Sample	Antecedent variable/s
	Sample 3: 212 employees working for small- and medium-sized enterprises in Tunisia.	
Kim *et al.* (2020)	203 employees of a casino hotel company in the USA.	*Employee perceptions of corporate s* – Economic (NS) – legal (NS) – Ethical (S) – Philanthropic (S)
Malhotra *et al.* (2020)	295 academic staff of two higher educational institutions in Malaysia.	*Perceived organizational justice* – Procedural justice (NS) – Distributive justice (NS) – Interactional justice (NS) – Psychological need satisfactio The results also showed that Psy mediates the relationship bet organizational justice (procedur and organizational identificatio
Nowak (2020)	715 employees "working in a higher education institution located in the USA".	– Structural empowerment (S)
Nguyen (2020)	889 employees of enterprises and pharmaceutical manufacturers in Vietnam.	– Corporate social responsibilit
Peng *et al.* (2020)	294 employees working in the Chinese hotel industry.	– Perceived job performance (S

Author/s (Year)	Sample	Antecedent variable/s
Teng *et al.* (2020)	316 employees of a number of three-star hotel employees in Taiwan.	– Ethical work climate (S)

Note: (S)= hypothesized relationships are empirically supported; (NS)= hypothesized relationships are not empi
papers, hypothesized relationships are not empirically examined.

2.4.2 Consequences of Organizational Identification

As noted above, organizational identification is thought to have a variety of favorable consequences for the organization such as create a more cohesive work atmosphere and increasing employees' motivation to achieve the organization's goals and objectives (Ashforth *et al.*, 2008; Edwards and Peccei, 2007). Table 2.2 presents a summary of the key consequences of organizational identification that have been proposed in the prior literature.

Ashforth and Mael (1989) proposed several consequences of organizational identification include commitment and support for the organization, outcomes normally associated with group formation (evaluations of the group, pride, loyalty, cooperation, and conformity to group norms as a result of self-stereotyping), and reinforcement to the proposed antecedents of organizational identification. The proposed framework of the antecedents and consequences of organizational identification by Dutton *et al.*'s (1994) suggests that the higher level of organizational identification is supposed to associate with a more positive evaluation of the attractiveness of the perceived organizational identity and construed external image. Additionally, Dutton and her colleagues (1994) suggested several consequences of organizational identification include contact with the organization, cooperation with other members of the organization (in-group cooperation), competitive behavior directed toward out-group members, and organizational citizenship behaviors.

Riketta's (2005) meta-analysis of research on organizational identification revealed that organizational identification is correlated with a wide range of work-related attitudes, behaviors, and context variables, but he mentioned that organizational identification has relatively higher correlations with job involvement, in-role performance, and extra-role performance. Table 2.2 shows, a sample of the studies that provided empirical support to these consequences' variables of organizational identification and other consequences. The following sections present a brief discussion of the most common consequences variables of organizational identification that have been addressed in organizational identification literature.

2.4.2.1 Organizational Commitment

The notion of organizational commitment has been defined in different ways in the literature, but the formulations of Allen and Meyer (1990) and Mowday *et al.* (1979) are the most widely used formulations of this construct in the literature (Ashforth *et al.*, 2008; Riketta, 2005). Mowday *et al.* (1979, p. 226) defined commitment as "the relative strength of an individual's identification with and involvement in a particular organization". Allen and Meyer (1990, p. 1) in their seminal study of organizational identification distinguished between three forms of commitment: "(1) affective commitment which refers to employees' emotional attachment to, identification with, and involvement in, the organization; (2) continuance commitment which associates with the costs associated with leaving the organization; and (3) normative commitment which refers to employees' feelings of obligation to remain with the organization". It can be seen that Allen and Meyer's (1990) definition of affective commitment resembles Mowday *et al.* 's (1979) definition of commitment.

Indeed, much debate existing in the literature on the association between organizational identification and organizational commitment (specifically affective commitment) at both conceptual and operational levels.

At the conceptual level there are two perspectives:

- On the one hand, several scholars did not consider any differences between organizational identification and organizational commitment and used the two constructs as synonyms or even interchangeable (e.g., Buchanan, 1974; Cheney, 1983; Mottola *et al.*, 1997).
- On the other hand, several scholars have distinguished between the two constructs and argued that organizational commitment is broader than organizational identification. More specifically, this viewpoint includes studies that addressed organizational identification from a social identity perspective (e.g., Ashforth *et al.*, 2008; Ashforth and Mael, 1989; Nguyen, 2020; Pratt, 1998; Van Dick, 2004). Ashforth and Mael (1989) are the most influential writers in the distinction between the two constructs, who detailed that organizational identification is "a perceptual-cognitive construct that is not necessarily associated with any specific behaviors or affective states" (p. 21). Pratt (1998, p. 178) also provided a useful interpretation in the distinguishing between the two

concepts, who states that organizational identification is more concerned with the question, 'How do I perceive myself in relation to my organization?', whereas organizational commitment is more associated with 'How happy or satisfied am I with my organization?'. Additionally, Ashforth *et al.* (2008) argue that organizational commitment represents a positive attitude toward the organization, and there is aspiration between the individual's identity and organization identity, in contrast in organizational identification there is intertwined between an individual's identity and the identity of the organization as the individual becomes a microcosm of the organization. This perspective is the dominant perspective in the literature because as previously mentioned social identity approach of organizational identification is the most pervasive theoretical framework in contemporary organizational identification research (e.g., Ashforth *et al.*, 2008; Ashforth and Mael, 1989; Riketta, 2005).

At the operational level, previous literature in the relationship between organizational identification and organizational commitment could be summarized into two groups of studies:

- The first group is the studies that considered the two constructs as a single-factor model in which there is some overlap in the scales. In this regard, several scholars incorporating items from organizational identification scales in their organizational commitment measures (e.g., Buchanan, 1974; Mottola *et al.*, 1997). On the other hand, other incorporating items from organizational commitment scales in their organizational identification measures (e.g., Cheney, 1983b).
- The second group is the studies that demonstrated that the two constructs are empirically discriminable and fit a two-factor model (e.g., Bergami and Bagozzi, 2000; Kim *et al.*, 2010; Nguyen, 2020; Riketta, 2005; Van Knippenberg and Sleebos, 2006). In addition, research here suggests that commitment relates more strongly with attitudinal variables such as job satisfaction, intent to stay, and absenteeism, while organizational identification relates more strongly with variables that relate to the characteristics of the organizational identity (e.g., attractiveness, distinctiveness, and internal consistency), job involvement and extra-role behaviors (Ashforth *et al.*, 2008; Riketta, 2005). Furthermore, as indicated in Table 2.2 many studies have gone beyond testing the

distinction between the two constructs, to study the direction of the relationship between constructs (Bergami and Bagozzi, 2000; Kim *et al.*, 2010; Nguyen, 2020; Riketta, 2005), these studies provided empirical evidence to the positive influence of organizational identification on organizational commitment.

2.4.2.2 Job Satisfaction

Job satisfaction is one of the most widely studied constructs in the prior organizational behavior literature because of its positive association with several crucial organizational outcomes such as employee job performance, absenteeism, turnover rate, organizational citizenship behaviors (Brief and Weiss, 2002; Brown and Peterson, 1993; Riketta, 2008; Spector, 1997). Indeed, much debate existing in the job satisfaction literature regarding the conceptualization (an affective or cognitive construct) and the operationalization of the construct (how to measure it and its dimensionality), for more details of these issues see (e.g., Brief and Weiss, 2002; Spector, 1997; Swanson, 2014; Weiss, 2002). Regardless, job satisfaction is defined as "a positive (or negative) evaluative judgment one makes about one's job or job situation" (Weiss, 2002, p. 175). This definition has become the more accepted definition of job satisfaction in the literature (Swanson, 2014).

Exploring the antecedents of job satisfaction has received considerable interest in the prior literature (e.g., Brown and Peterson, 1993; Spector, 1997; Swanson, 2014). In this regard, Brown and Peterson (1993) in their influential article of a meta-analysis of the antecedents and consequences of salesperson job satisfaction grouped job satisfaction antecedents into three general categories of antecedents: (1) individual differences category include both demographic variables (e.g., age, education, organizational tenure, etc.) and dispositional variables (e.g., work motivation, self-esteem, task-specific, etc.); (2) role perceptions category which concern with the employees' perceptions of role perception constructs (i.e., role ambiguity, role conflict, and role clarity); and (3) organizational variables category which include two types of variables supervisory behaviors variables (e.g., consideration; feedback, communication, close supervision, etc.) and job/task characteristics variables (e.g., task significance, task variety, job involvement, compensations, etc.). Also, as indicated in Table 2.2 several studies have documented the positive influence of organizational identification on job satisfaction (Van Dick *et al.*, 2004; Van

Dick *et al.*, 2007; Van Dick *et al.*, 2008; Van Knippenberg and Van Schie, 2000). The main argument to support this relationship is that people, in general, tend to evaluate attitude objects associated with the self positively, and through organizational identification, the job becomes in a sense part of the individual's sense of self, which in turn expected to add to feelings of job satisfaction (Van Knippenberg and Van Schie, 2000).

2.4.2.3 Organizational Citizenship Behaviors

Organizational citizenship behaviors one of the important topics that received considerable attention in organizational behavior literature over the past three decades because of its pivotal role in organizations' success and competitiveness (e.g., Bergami and Bagozzi, 2000; Buil *et al.*, 2019; Dutton *et al.*, 1994; Konovsky and Pugh,1994; Teng *et al.*, 2020; Van Dick *et al.*, 2006; Organ, 1988). While there is no consensus on the conceptualization and operationalization of the construct. Konovsky and Pugh (1994, p. 656) defined it as "employee behavior that is above and beyond the call of duty and is therefore discretionary and not rewarded in the context of an organization's formal reward structure". According to Organ (1988, p. 4), organizational citizenship behavior represents "individual behavior that is discretionary, not directly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization". Dutton *et al.*, (1994, p. 255) referred to it as "organizationally functional behaviors that extend beyond role requirements and are not contractually guaranteed". Furthermore, organizational citizenship behaviors have several synonyms in the literature such as pro-social organizational behaviors, organizational spontaneity, contextual performance, extra-role behaviors (Riketta, 2005; Van Dick *et al.*, 2006).

As indicated in Table 2.2 the positive association between organizational identification and engaging in organizational citizenship behaviors is well documented in the literature (Bergami and Bagozzi, 2000; Buil *et al.*, 2019; Cheema *et al.*, 2019; Dukerich *et al.*, 2002; Dutton *et al.*,1994; Fuller *et al.*, 2006; Riketta, 2005; Teng *et al.*, 2020; Van Dick *et al.*, 2006; Van Dick *et al.*, 2007). Previous studies in the linkage between organizational identification and organizational citizenship behaviors have ranged from focusing on the broad aspects of organizational citizenship behaviors (e.g., Bergami and Bagozzi, 2000; Buil *et al.*, 2019; Dukerich *et al.*, 2002; Teng *et al.*, 2020; Van Dick *et al.*, 2006;

Van Dick *et al.*, 2007) to focus on specific behaviors such as cooperative organizational behaviors (Dukerich *et al.*, 2002), employees' voice behavior (Fuller *et al.*, 2006), and employees' behaviors directed toward environmental improvement (Afsar *et al.*, 2018; Cheema *et al.*, 2019; Peng *et al.*, 2020). Fuller *et al.* (2006), for instance, studied the influence of organizational identification on employees' voice behavior as a specific form of organizational citizenship behaviors, which refers to the behavior of offering suggestions for improvements in standard procedures or processes as well as other constructive ideas meant to improve the organization. Fuller and his colleagues argued that employee voice behavior has several favorable outcomes in the organizational context such as enhances cooperation and cohesion within the organization, increases the social well-being of the organization, and increases individuals' motivations to support and achieve the organizational goals.

The main mechanism by which organizational identification may stimulate employees to show organizational citizenship behaviors is that organizational identification elicits employees' feelings of a sense of oneness with the organization which leads to internalizing the organization's aims and objectives as their own (Mael and Ashforth, 1992; Van Dick et al 2006). Which in turn, leads to engaging in citizenship behaviors because employees are likely to consider those behaviors that benefit the organization also benefiting themselves (Buil *et al.*, 2019; Dukerich *et al.*, 2002; Dutton *et al.*, 1994; Fuller *et al.*, 2006; Teng *et al.*, 2020; Van Dick *et al.*, 2006).

2.4.2.4 Turnover Intention

Undoubtedly, turnover or withdrawal from the job is one of the thorniest issues facing many organizations that directly affect an organization's performance and competitiveness because turnover is often extremely costly for the organizations, specifically in jobs that offer higher education and extensive on the job training (Edwards and Peccei, 2010; Van Dick *et al.*, 2004; Van Knippenberg *et al.*, 2007). Consequently, exploring the factors that associates with employees' intention to stay or to leave the organization received a great interest in organizational behavior literature (e.g., Edwards, 2005; Edwards and Cable 2009; Kim *et al.*, 2020; Nowak, 2020; Van Knippenberg and Van Schie, 2000). In this respect as illustrated in Table 2.2, several studies have demonstrated the negative association between organizational identification and employees ' intention to leave the organization (Edwards and Peccei, 2010) or employees' turnover intentions (Nowak, 2020; Van Dick *et al.*, 2004; Van Knippenberg and Van Schie, 2000; Van Knippenberg *et al.*, 2007). From the opposite perspective, Edwards and Cable (2009) and Kim *et al.* (2020) supported the positive influence of organizational identification on employees ' intention to stay in the organization. The argument of these studies to support the linkage between organizational identification and the intention to leave or to stay in the organization is that the more an individual identifies with an organization, the more the individual is psychologically intertwined and tied to the organization and the organization becomes part of his or her self-concept. As such, the withdrawal or leaving the organization would mean renounce part of the individual's self-concept, this should result in higher intentions to stay in the organization for those with higher identification (Edwards, 2005: Edwards and Cable, 2009; Kim *et al.*, 2020) or in the opposite lower intentions to leave (Edwards and Peccei, 2010; Nowak, 2020; Van Dick *et al.*, 2004; Van Knippenberg and Van Schie, 2000; Van Knippenberg *et al.*, 2007).

2.4.2.5 In Role Behaviors

As previously declared, organizational identification elicits employees' feelings of a sense of oneness with the organization which leads to internalizing the organization's aims and objectives as their own (Van Dick et al 2006; Mael and Ashforth, 1992). As a result, the more individuals identify with an organization, the more they are likely to focus more effectively on their tasks and increase their individual performance (Buil *et al.*, 2019; Walumbwa *et al.*, 2008). In this respect, as indicated in Table 2.2, previous studies have demonstrated the positive influence of organizational identification in various aspects relates to employees in role performance such as cooperation behaviors (Dukerich *et al.*, 2002; Dutton *et al.*,1994), job performance (Buil *et al.*, 2019; Walumbwa *et al.*, 2008), job involvement (Van Knippenberg and Van Schie, 2000), job motivation (Van Knippenberg and Van Schie, 2000), work engagement (Buil *et al.*, 2019), and employee absenteeism (Van Knippenberg *et al.*, 2007).

2.4.2.6 Other Consequences

Besides the above-discussed consequences of organizational identification, several studies established a positive relationship between organizational identification and other consequences such as degree of adjustment within the organizational system (i.e. becoming integrated) (Carmeli *et al.*, 2007), organizational involvement (Edwards, 2005; Edwards and Peccei, 2010), defending the organization (Edwards, 2005), customer orientation (Homburg *et al.*, 2009), and customer-company identification (Homburg *et al.*, 2009) (see Table 2.2 for more details). These consequences were not discussed in detail because they received less attention in the literature. Also, because these consequences do not relate directly and do not offer any support to the hypothesized relationships in this study as displayed in chapter four.

Table 2.2 Summary of the Previous Key Studies in the Consequences of Organizati

Author	Sample	Consequence variable/s
Ashforth and Mael (1989)	–	– Commitment and support fo – Outcomes normally asso (evaluations of the group, conformity to group norms a – Reinforcement to the propos
Dutton *et al.* (1994)	-	– Increasing the positive evalu perceived organizational ide (*) – Seek contact with the organiz – Cooperation with other mem cooperation) (*) – Competitive behavior directe – Organizational citizenship be
Bergami and Bagozzi (2000)	409 employees from the Camst company in Italy.	– Affective commitment (S) – Organizational-based self-e – Citizenship behaviors (Indi and organizational-based se
Van Knippenberg and Van Schie (2000)	<u>*Sample 1:*</u> 76 employees of a local Dutch government <u>*Sample 2:*</u> 163 employees from different faculties at a Dutch university.	<u>*Organizational attitudes and behav*</u> – Turnover intentions (-) (S) i – Job motivation (S) in both s – Job involvement (S) in both – Job satisfaction (S) in samp

Author	Sample	Consequence variable/s
Dukerich *et al.* (2002)	1504 physicians affiliated with three health care systems in the United States.	– Cooperation (S) – Organizational citizenship be
Van Dick *et al.* (2004)	*Sample 1:* 358 employees from a large regional bank in Germany. *Sample 2:* 107 employees from another German bank. *Sample 3:* 211 employees of Call center agents in Germany. *Sample 4:* 459 employees of a clinical hospital in Germany.	– Job satisfaction (S) in all samp – Turnover intentions (-) (S) in The results also suggested tha mediating role in the relati identification and turnover inten
Edwards (2005)	-	*Attitudinal outcomes* – Involvement in the organizat – Evaluative identification pric – Loyalty/ Desire to stay (*) *Behavior outcomes* – Organization citizenship beh – Defending the organization (– Staying at the organization (*

Author	Sample	Consequence variable/s
Fuller *et al.* (2006)	205 of healthcare employees from three different sources (subordinates, supervisors, and company records) in the United States.	– Organization-supportive beh
Van Dick *et al.* (2006)	*Sample 1:* 211 employees of Call center agents in Germany. *Sample 2:* 515 teachers from all German school types and from eight different federal states. *Sample 3:* 464 teachers from two different German school-types and four different federal states. *Sample 4:* 526 teachers from 42 different German schools. *Sample 5:* 358 employees from a large regional bank in Germany. *Sample 6:* 107 employees from another German bank. *Sample 7:* 459 employees of a clinical hospital in Germany. *Sample 8:* 433 a heterogeneous sample of German employees *Sample 9:* 399 employees of a manufacturing company in South China.	– Organizational citizenship be

Author	Sample	Consequence variable/s
	Sample 10: 450 employees from 10 different German companies.	
Carmeli *et al.* (2007)	161 employees from four companies competing in the electronics and media industry in Israel.	– Degree of adjustment withi becoming integrated) (S)
Van Dick *et al.* (2007)	*Sample 1:* 367 school teachers and 60 headteachers from all German school types and eight different federal states. *Sample 2:* 233 school teachers and 22 headteachers from two different German school types and four different federal states *Sample 3:* 314 travel agents in 127 German travel agencies and their leaders (managers).	– Employee job satisfaction (S) – Extra-role behavior (S) in the
Van Knippenberg *et al.* (2007)	*Study1:* 358 bank accountants from a large regional bank in Germany.	– Turnover intention (-) (S)
	Study2: 175 German schoolteachers.	– Employee Absenteeism (-) (S
Larson *et al.* (2008)	574 sales representatives working with a large direct selling firm in the United States.	– Salesperson's selling confide
Van Dick *et al.* (2008)	*Sample 1:* 358 employees from different branches of a large regional bank in Germany *Sample 2:* 308 front line employees from a German travel agency organization.	– Employee job satisfaction (S) – Extra-role behavior (S) in bot

Author	Sample	Consequence variable/s
Walumbwa *et al.* (2008)	437 employees of six different banks in two different states in the United States.	– Job performance (S)
Edwards and Cable (2009)	997 employees in a wide range of job types and levels in four water treatment agencies in the United States.	– Intent to stay (S)
Homburg *et al.* (2009)	597 customers of 109 travel agencies in Germany.	– Customer orientation (S) – Customer-company identifica
Edwards and Peccei (2010)	736 employees from a UK National Health Service (NHS) Trust.	– Organizational involvement – Intention to leave (-) (S)
Jones (2010)	162 employees from Green Mountain Coffee Roasters (GMCR), a publicly-traded company in the United States.	– Intent to stay (S) – Employee loyalty (S) – Citizenship behaviors towar – Citizenship behaviors towar – In-role performance (NS)
Kim *et al.* (2010)	120 employees from three service firms and two manufacturers of consumer goods in Korea.	– Employee commitment (S)
Griepentrog *et al.* (2012)	669 applicants to the United States military at 2 intervals, separated by 3 months.	– Pursuit Intentions (S) – Recruitment withdrawal (-) (The results also suggested that p the effects of identification on re
Afsar *et al.* (2018)	298 employees from "diverse industry sectors (coal generating power industry, food, chemical, and pharmaceutical industries" in Pakistan.	– Pro-environmental behavio

Author	Sample	Consequence variable/s
Buil *et al*. (2019)	323 frontline hotel employees from different Spanish hotels.	– Job performance (NS) – Work engagement (S) – Organizational citizenship b
Cheema *et al*. (2019)	374 employees from diverse industry sectors in Pakistan.	– Engagement in organizatio environment (S)
Kim *et al*. (2020)	203 employees of a casino hotel company in the USA.	– Higher-order quality-of-worl – Intention to stay (S) – The results also demonstr organizational identification order quality-of-work-life.
Nowak (2020)	715 employees working in a higher education institution located in the USA.	– Turnover intention
Nguyen (2020)	889 employees of enterprises and pharmaceutical manufacturers in Vietnam.	– Organizational commitment
Peng *et al*. (2020)	294 employees working in the Chinese hotel industry.	– Employees' engagement in p – The results also showed tha full mediator in the relat performance and emplo environmental behaviors.
Teng *et al*. (2020)	316 employees of a number of three-star hotel employees in Taiwan.	– Organizational citizenship be

Note: (S)= hypothesized relationships are empirically supported; (NS)= hypothesized relationships are not empi papers, hypothesized relationships are not empirically examined.

2.5 Conclusions

Considering that university brand identification literature is an extension of the self-identification relationship literature in organizational behavior studies and marketing studies from the social identity perspective, this chapter presented an expanded view of the topic of organizational identification, where the origin of the identification and the theoretical foundation of organizational identification was highlighted. This chapter introduced in four main sections:

- Section one offered a review of the concepts of identity and organizational identity and the origin of the identification concept. In summary, identity is "a commonly used term and thus can mean different things to different people" (Deaux, 2001). Person identity involves people's explicit or implicit responses to the question: "Who are you?" (Vignoles *et al.*, 2011). Albert and Whetten's (1985) definition of organization identity is the more accepted definition of organizational identity in the literature in which they defined it as "the central, distinctive, and enduring character of an organization". The concept of identification has its roots in psychological theories where the notion of identification is presented as "a vehicle or tool for persuasion and fostering 'participation in a collective social role"(Burke, 1937). From a wider view, Pratt (1998) described identification as "the extent to which individuals define themselves in terms of another individual, relationship, or group".
- Section two presented an overview of the theoretical foundation of organizational identification. Briefly, the early conceptualizations of organizational identification are fairly broad and involve a range of different concepts: shared characteristics, a sense of belongingness, a sense of solidarity, loyalty, attraction to the organization, and support for the organization. Such a wide conceptualization of organizational identification is "likely to be addressing constructs beyond the notion of identification" (Edwards, 2005; Elbedweihy, 2014). The relatively narrow conceptualizations tend to follow the social identity perceptive (e.g., Ashforth and Mael, 1989; Dutton *et al.,* 1994; Mael and Ashforth, 1992), in which organizational identification is viewed as self-definition in terms of organizational membership.

- Section three described the association between personal identity and organizational identification and individuals' outcomes of organizational identification. In summary, identity and identification can be seen as "root constructs" (Ashforth *et al.*, 2008, p. 334). According to Pratt (1998), the integration between personal identity and organizational identification can be manifested in "the personal identity is concerned with the question "Who am I?", whereas organizational identification asks How do I come to know who I am in relation to the organization in which I participate)?" (p. 171). Organizational identification is assumed to have several potentially important benefits both for the organization and for organizational members themselves.
- Section four offered an overview of the main antecedents and consequences of organizational identification. The review of the key studies of antecedents and consequences of organizational identification revealed that perceived organizational prestige, perceived organizational distinctiveness, self-similarity, corporate social responsibility perceptions, perceived organizational support, and organizational trust are the most common drivers of organizational identification. While organizational commitment, job satisfaction, organizational citizenship behaviors, turnover intention, and in-role behaviors

The next chapter presents a review of the consumer-company/brand identification literature and the key studies in its antecedents and consequences in the marketing literature.

CHAPTER 3

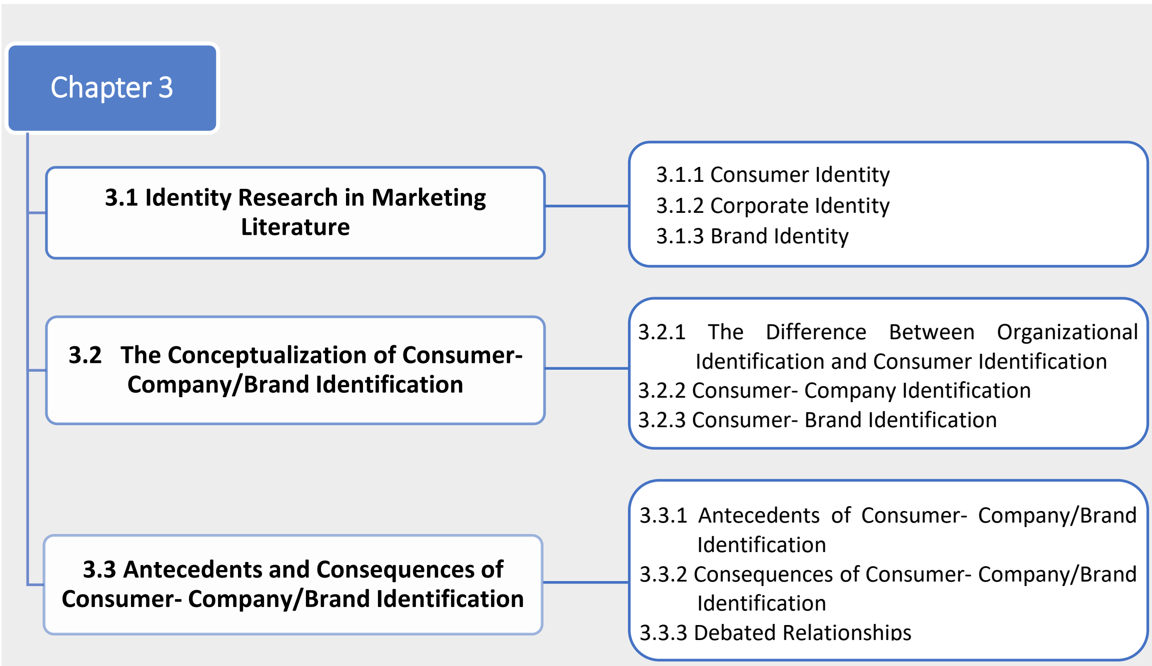
CONSUMER-COMPANY/BRAND IDENTIFICATION LITERATURE

- Identity Research in Marketing Literature
- The Conceptualization of Consumer-Company/Brand Identification
- Antecedents and Consequences of Consumer-Company/Brand Identification

CONSUMER-COMPANY/BRAND IDENTIFICATION LITERATURE

The goal of this chapter is to provide a review of consumer-company/brand identification literature (i.e., consumer identification with company/brand). The chapter is presented in three main sections. The first section provides a review of identity research in marketing literature in which a brief discussion of the concepts of consumer identity, corporate identity, and brand identity are presented to understand the concept of consumer identification with the company/brand. The second section provides an overview of the conceptualization of consumer-company/brand identification, this section begins with a discussion of the difference between organizational identification and consumer identification, followed by a discussion of the definitions of consumer identification with the company and then for consumer identification with the brand, followed by a discussion of the dimensionality of consumer identification with the company/brand is presented. Finally, the key literature in the antecedents and consequences of consumer identification with the company/brand is reviewed in section three. Figure 3.1 shows the structure of the chapter.

Figure 3.1 Structure of Chapter Three



3.1 Identity Research in Marketing Literature

While organizational identity and employee identity (i.e., the aspects to define the person in terms of his/ her membership in an organization) are the primary focus of identity-related research in organizational behavior literature, identity-related research in marketing focuses on three types of identity: consumer identity, corporate identity, and brand identity. To understand the concept of consumer identification with a company/brand these identities will be discussed first.

3.1.1 Consumer Identity

Consumer identity or consumer self-concept has a long history in the marketing literature and received considerable attention as a fundamental and powerful motivator of consumer behavior (Belk, 1988; Escalas and Bettman, 2003; Escalas and Bettman, 2005; Sirgy, 1982). The beginnings of consumer identity-related research are evident in the influential work of Levy (1959) entitled “Symbols for Sale” in which he argues that “consumer is not functionally oriented and that his/her behavior is significantly affected by the symbols carried by the products in the marketplace”. Levy’s (1959) study directed the attention of consumer behavior researchers to the potential influence of consumers' self-concepts on consumption behavior (Belk, 1988; Escalas and Bettman, 2003; Escalas and Bettman, 2005; Sirgy, 1982). Thus, research began to focus on the importance of the congruity between consumer self-concept and product image, wherein a consumer perceives a product as representing aspects of his/herself (Sirgy 1982). Belk (1988) in his seminal article “Possessions and the Extended Self” went beyond focusing on the congruity between an individual’s self-concept and product image to the role of people’s possessions as a major contributor to and reflection of their identities. Accordingly, several researchers argue that possessions can be used to satisfy the individual’s psychological needs such as creating a sense of self, reinforcing and expressing self-identity, distinguishing self from others (e.g., Belk, 1988; Kleine *et al.*, 1995).

Over the few past, consumer behavior scholars give more concentration on the link between consumer perceptions of brand identity and consumer’s self-concept (e.g., Escalas and Bettman, 2003; Escalas and Bettman, 2005; Park *et al.*, 2010). In this regard, Escalas and Bettman (2003), and subsequently, Escalas and

Bettman (2005) argue that consumers purchase brands in part to construct their self-concepts and they introduced the term "self-brand connections" which represent the extent to which individuals incorporate brands into their self-concept. Consumer-company/brand identification, which is the main focus of this chapter, is another research stream in the link between consumer identity and brand identity that has been received considerable attention in the recent marketing literature (e.g., Elbedweihy *et al.*, 2016; Han *et al.*, 2020; Kuenzel and Halliday, 2008; Lam *et al.*, 2013; Stokburger-Sauer *et al.*, 2012; Tuškej *et al.*, 2013).

3.1.2 Corporate Identity

Corporate identity can be defined as "the set of meanings by which a company allows itself to be known and through which it allows people to describe, remember and relate to it" (Melewar, 2003, p. 197). Bhattacharya and Sen (2003) argue that corporate identity includes the traits that reflect the company's core values as embodied in its operating principles, organizational mission, leadership, and the demographic characteristics of the company such as industry, company size, market position, and the prototypical profile. A corporate identity could be conveyed to consumers through two types of communicators: internal communicators of identity which are entirely controlled by the company (e.g., corporate communications, company-sponsored forums), and external communicators of identity which are not entirely controlled by the company (e.g., media, customers, monitoring groups) (Bhattacharya and Sen, 2003).

In the differentiating between corporate identity and organizational identity, researchers referred that organizational identity is more likely to have internal focus (the internal stakeholders' perceptions of the company, in other words, the company view of itself), whereas corporate identity is more likely to have external focus (the external stakeholders' perceptions of it) (Balmer, 2008; Elbedweihy, 2014; Hatch and Schultz,1997). Also, the level of analysis is another aspect in distinguishing between the two identities, whereas organizational identity is studied at the individual level, corporate identity is studied at a corporate level (He and Balmer, 2007).

3.1.3 Brand Identity

There is no universally accepted definition of brand identity and it can be defined in several ways. Aaker (1996, p. 68), for instance, defined it as "a unique set of brand associations that the brand strategist aspires to create or maintain". De Chernatony (2010, p.55) challenged this view and arguing that it does not consider the way that consumers perceive the brand and focuses only on the internal aspects of the brand. Subsequently, De Chernatony (2010, p. 53) defined brand identity as "the distinctive or central idea of a brand and how the brand communicates this idea to its stakeholders". Ghodeswar (2008, p. 7) described brand identity as a unique set of brand associations implying a promise to customers and includes a core identity (which focuses on product attributes, service, user profile, store ambience, and product performance) and extended identity (which provide brand texture and completeness and focuses on brand personality, relationship, and strong symbol association).

3.2 The Conceptualization of Consumer-Company/Brand Identification

Identification research in organizational behavior literature as discussed in the previous chapter focuses on the process of employees identifying with the organizations while marketing literature focuses on the process of consumers identifying with organizations, which is termed consumer-company identification (Ahearne *et al.*, 2005; Bhattacharya and Sen 2003; Currás-Pérez *et al.*, 2009) or the brand which is named consumer-brand identification (Elbedweihy *et al.*, 2016; Han *et al.*, 2020; Stokburger-Sauer *et al.*, 2012). The next sections offer a detailed discussion on the difference between employee identification and consumer identification, the conceptualization of consumer-company identification, the conceptualization of consumer-brand identification, and the dimensionality of consumer-company/brand identification.

3.2.1 The Difference Between Employee Identification and Consumer Identification

Organizational identification focuses on employee identification with the organization in which there is an actual organizational membership and the organization plays central roles in employee's lives, while in consumer identification with the company/brand there is no actual membership and the identification is based on a symbolic membership. Accordingly, Ahearne *et al.* (2005) and Bhattacharya and Sen (2003) suggest a set of contingent conditions of consumer identification with the company/brand. First, the product or service must be important enough for the consumer to make the company or the brand salient to the consumer and to make it a valid target for social identity fulfillment. Second, consumer identification is more likely to occur when the consumer perceives the company or the brand as more salient and distinctive compared to other related companies or brands. The final condition is consumer's embeddedness through frequent interaction with the company and engages in company-related rituals and routines, as these embedded relationships make consumers feel more like insiders than outsiders, thereby increasing the likelihood that the company is going to be designated as a valuable social category, capable of shaping their social identity.

3.2.2 Consumer-Company Identification

Several organizational identification researchers have alluded to the idea that formal membership is not a prerequisite for the identification with the organization. Thus, other stakeholders—including customers—of an organization may also identify with the organization (Bhattacharya *et al.*, 1995; Pratt, 1998; Scott and Lane, 2000). Indeed, the identification concept was first investigated in the marketing literature by Bhattacharya *et al.* (1995) in their influential work of understanding the bond of identification that was published in the Journal of Marketing. Bhattacharya and his colleagues (1995) drew upon Social Identity Theory and organizational identification literature and investigated the extent to which customers identify with the organizations. Specifically, they investigated the extent to which customers in their role as "members of an art museum identify with that museum".

The loosening of group membership as a prerequisite condition for identification led to extend the identification concept to the context of customers' relationships with companies and brands. Bhattacharya and Sen (2003) in their important remarkable work on consumer-company identification extended the concept of identification to the company context and introduced the term of consumer-company identification (consumer identification with the company) and described it as an active, selective, and volitional act motivated by the satisfaction of one or more of self-definitional needs (i.e. self-continuity, self-enhancement, and self-distinctiveness). The main argument for extending the identification relationship to consumer-company relationships is that certain companies embody attractive and meaningful social identities to consumers that help them to satisfy one or more of their key self-definitional needs (Bhattacharya and Sen, 2003). As a result, such companies constitute valid targets for identification among relevant consumers. Marin *et al.* (2009, p. 68) defined consumer-company identification as "a consumers' psychological attachment to a company based on a substantial overlap between their perceptions of themselves and their perceptions of the company". Lichtenstein *et al.* (2004) used the term consumer-corporate identification and referred to it as "the degree of overlap in a consumer's self-concept and his or her perception of the corporation" (p. 17). Homburg *et al.* (2009) argue that consumer-company identification helps a person to clarify his or her self-concept and to gain a positive self-appraisal through a positive company appraisal, for instance, consumers of high prestigious companies (e.g., Apple, BMW, etc.) strongly identify with these companies and this identification is linked to how they define themselves as persons. In clarifying the importance of consumer-company, Bhattacharya and Sen (2003) mentioned that consumer-company identification forms the "primary psychological substrate for the kind of deep, committed, and meaningful relationships that marketers are increasingly seeking to build with their customers" (p. 76).

3.2.3 Consumer-Brand Identification (CBI)

Following the same logic of extending the concept of identification to consumer-company relationships and considering that brands are widely recognized as sources of symbolic meanings and are important in creating and communicating consumer identity (Escalas and Bettman, 2003; Kuenzel and Halliday, 2008; Fournier, 1998). Furthermore, brands are more "familiar to consumers than companies as the same company may have multiple brands with different personalities" (e.g., Procter & Gamble) or work in a wide range of business areas (e.g., General Electric) (Elbedweihy, 2014; Keh and Xie, 2009; Tidesley and Coote, 2009). Marketing scholars then extended the identification relationship to consumer-brand relationships and introduced the concept of consumer-brand identification (consumer identification with the brand) (e.g., Kuenzel and Halliday, 2008; Stokburger-Sauer *et al.*, 2012). Consumer identification with the brand has received substantial attention from marketing scholars in both products domain (e.g., Currás-Pérez *et al.*, 2009; Elbedweihy *et al.*, 2016; He *et al.*, 2012; Kuenzel and Halliday, 2008; Stokburger-Sauer *et al.*, 2012) and services domain (e.g., Berrozpe *et al.*, 2019; Han *et al.*, 2020; He and Li, 2011; Nam *et al.*, 2011).

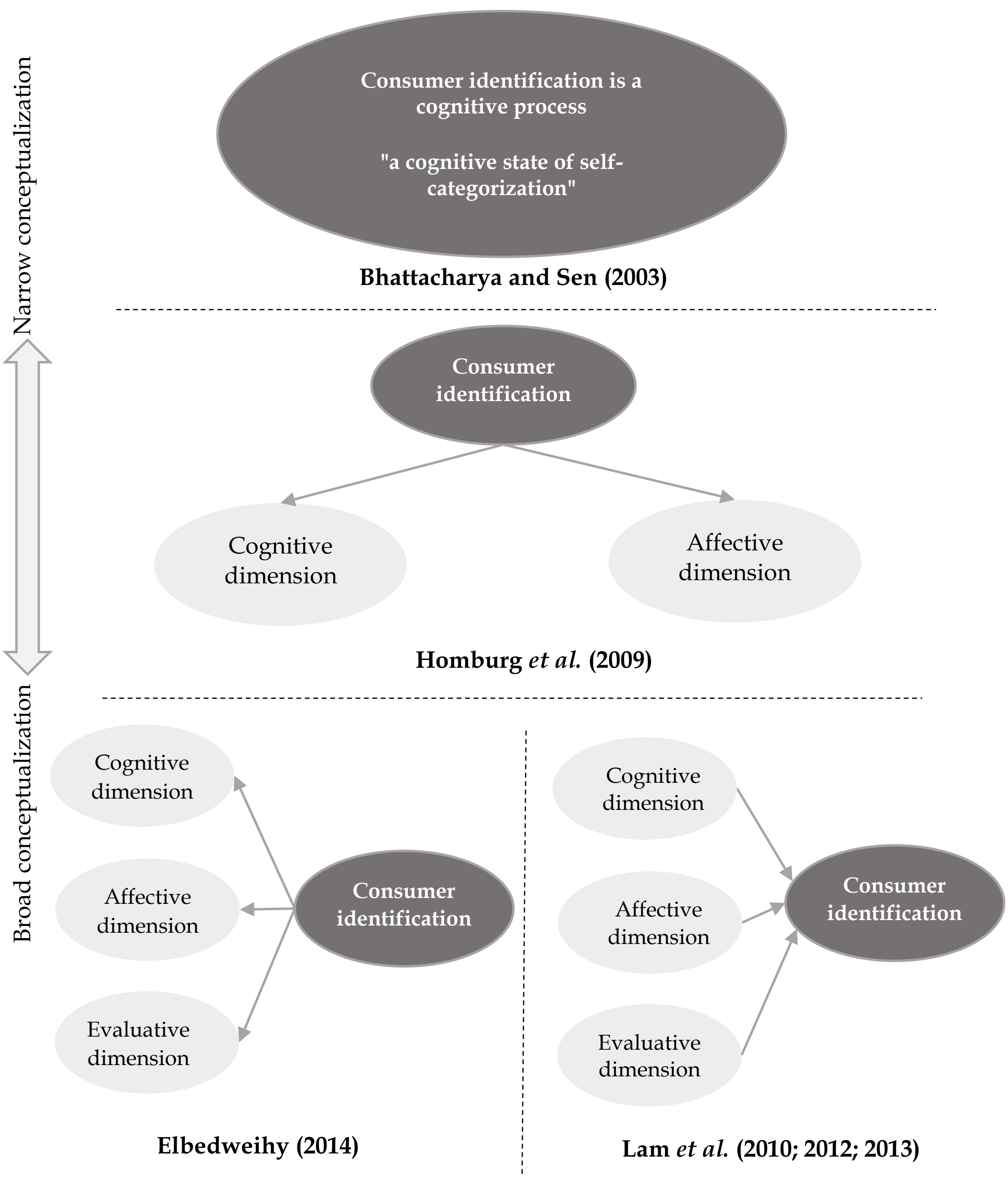
Indeed, scholars have not reached a consensus on a standard definition of consumer identification with the brand. Accordingly, consumer-brand identification is defined in different ways in the literature. For instance, Stokburger-Sauer *et al.* (2012, p. 407) defined consumer identification with the brand as "a consumer's perceived state of oneness with a brand". Tuškej *et al.* (2013, p. 54) referred to it as "the perception of sameness between the brand (signifying an object with symbolic meanings) and the consumer". In a similar vein, Elbedweihy *et al.* (2016) defined consumer identification with the brand as "the perceived overlap between one's own self-concept and the brand's identity" (p. 2901). Lam *et al.* (2010), and subsequently, Lam *et al.* (2012) and Lam *et al.* (2013) take a somewhat different approach by defining consumer identification with the brand as a multidimensional construct and defined it as "a customer's psychological state of perceiving, feeling, and valuing his or her belongingness with a brand" (Lam *et al.*, 2010, p. 130).

3.2.4 The Dimensionality of Consumer Company/Brand Identification

Like the debate emerged in organizational behavior literature regarding the dimensionality of organizational identification (e.g., Ashforth and Mael, 1992; Edwards, 2005; Edwards and Peccei, 2007; Van Dick, 2001; Van Dick *et al.*, 2004; Van Dick *et al.*, 2006), marketing scholars have not reached a consensus on the dimensionality of consumer identification (e.g., Bhattacharya and Sen, 2003; Homburg *et al.*, 2009; Lam *et al.*, 2010, Lam *et al.*, 2013). On the one hand, Bhattacharya and Sen (2003) drew upon Ashforth and Mael's works in organizational identification (1989; 1992) and described consumer identification with the company as a unidimensional cognitive construct (i.e., a cognitive state of self-categorization). Numerous studies adopting the unidimensional cognitive perspective of consumer identification regardless of the level of identification at the company level (e.g., Currás-Pérez, 2009; Pérez and Rodríguez del Bosque, 2015; Tuškej and Podnar, 2018) or at the brand level (Han *et al.*, 2020; Kuenzel and Halliday, 2008; Stokburger-Sauer *et al.*, 2012; So *et al.*, 2017).

On the other hand, others followed the multidimensional perspective in their conceptualization of consumer identification (e.g., Casaló *et al.*, 2010; Elbedweihy, 2014; Homburg *et al.*, 2009; Lam *et al.*, 2010, 2012, 2013). For instance, Homburg *et al.* (2009) conceptualized consumer identification with the company as a multidimensional construct made of cognitive and affective dimensions. Lam *et al.* (2010), and subsequently, Lam *et al.* (2012) and Lam *et al.* (2013) conceptualized consumer identification with the brand as a second-order formative construct, with three reflective first-order dimensions (i.e., cognitive, affective, and evaluative dimensions). The cognitive dimension relates to the cognitive overlap between the consumer's self and the brand, whereas the affective and evaluative dimensions relate to affective and evaluative facets of psychological oneness with the brand. In a similar vein, Elbedweihy (2014, p. 111) in her work of reconceptualizing CBI, conceptualized CBI as a reflective second-order construct with three reflective first-order dimensions: "(1) cognitive identification which relates to the consumers' readiness to self-categorize in terms of a particular brand determined by the extent to which it is perceived as relevant and important to their self–concept; (2) affective identification which relates to the extent to which consumers feel a sense of emotional attachment toward the brand and their emotional responses towards others; and (3) evaluative identification which concerns with the extent to which consumers value their association with the brand and the perceived evaluations placed on this association by other people". Figure 3.2 shows the conceptualization of consumer identification from these different perspectives.

Figure 3.2 The Conceptualization of Consumer Identification



However several scholars followed the multidimensional perspective in their conceptualization of consumer identification (e.g., Homburg *et al.*, 2009; Lam *et al.*, 2010; 2012; 2013), the unidimensional cognitive perspective is the dominant perspective in studying consumer-company/brand identification in the literature (e.g., Currás-Pérez, 2009; Han *et al.*, 2020; Kuenzel and Halliday, 2008; Pérez and Rodríguez del Bosque, 2015; Stokburger-Sauer *et al.*, 2012; So *et al.*, 2017; Tuškej and Podnar, 2018). In this regard, Elbedweihy's (2014) systematic review of consumer identification literature that included 89 articles revealed that among these articles, 59 articles have been provided an explicit definition of consumer identification, and among these studies that provided an explicit definition of consumer identification 48 articles followed the unidimensional cognitive perspective in the conceptualization of consumer identification and only 17 articles that followed the multidimensional perspective in the conceptualization of consumer identification.

3.3 Antecedents and Consequences of Consumer-Company/Brand Identification

As previously noted, Bhattacharya and Sen (2003, p. 76) described consumer's identification with the company as "the primary psychological substrate for that kind of deep, committed, and meaningful relationship that marketers are increasingly seeking to build with their customers". Thus, consumer's identification with the company/brand is thought to be an important construct in understanding the underlying mechanisms that explain the relationship between consumers and companies/brands and proposed to have favorable consequences in enhancing consumers' positive attitudes and behaviors toward the company/brand (Bhattacharya and Sen, 2003; Elbedweihy *et al.*, 2016; Stokburger-Sauer *et al.*, 2012). Accordingly, studying the antecedents and consequences of consumers' identification with the company/brand has attracted increasing interest in the marketing literature over the past two decades (e.g., Ahearne *et al.*, 2005; Bagozzi and Dholakia, 2006; Han *et al.*, 2020; Kumar and Kaushik, 2020; So *et al.*, 2017; Torres *et al.*, 2017; Tuškej and Podnar, 2018). The next sections present a detailed discussion of the key literature on the antecedents and consequences of consumer-company/brand identification.

3.3.1 Antecedents of Consumer-Company/Brand Identification

Investigating the antecedents of consumer-company/brand identification has received great attention from researchers over the past few years (e.g., Ahearne *et al.*, 2005; Han *et al.*, 2020; Kumar and Kaushik, 2020; Stokburger-Sauer *et al.*, 2012; So *et al.*, 2017; Tuškej and Podnar, 2018). Table 3.1 presents a summary of the key antecedents of consumer-company/brand identification that has been proposed in prior literature. Because research suggests a variety of antecedent factors of consumer-company/brand identification, several scholars attempted to group those antecedents into main categories. For instance, Bhattachary *et al.* (1995) in their study of organizational identification among customers in their role as members of an art museum, which is the first study on the topic of customer identification in the marketing literature, classified antecedents of identification into three groups of antecedents; (1) antecedents related to organizational and product characteristics (i.e., perceived organizational prestige and expectation confirmation with services); (2) antecedents related to members' affiliation characteristics (i.e., length of membership, visibility of membership, and participation in similar organizations); and (3) antecedents related to members' activity characteristics (i.e., contact and donation). From a different perspective, Lam (2012) in his work of "Identity-Motivated Marketing Relationships" suggested three main groups of the drivers of consumer's identification: (1) social influence antecedents (i.e., associated/dissociated groups, social interaction with identity communicators, social support, justice, and rewards), symbolic and psychological antecedents (i.e., self-target congruity, target uniqueness, psychological needs, and corporate social responsibility), and instrumental antecedents (i.e., satisfaction, prior use/contact, and switching costs).

Moreover, Stokburger-Sauer *et al.* (2012) in their important article on drivers of consumer-brand identification proposed two groups of drivers namely cognitive drivers (i.e., brand–self-similarity, brand distinctiveness, brand prestige), and affective drivers (i.e., brand social benefit, brand warmth, memorable brand experience). Similary, Torres *et al.* (2017) drew on Stokburger-Sauer *et al.*'s (2012) and anticipated two categories of the drivers of consumer-brand identification: cognitive drivers which include brand-self similarity and brand identity, and affective drivers which include brand social benefits and memorable brand experiences.

So *et al.* (2017) grouped brand prestige and brand distinctiveness as antecedents of consumer identification with the brand in a group of antecedents namely brand identity, whereas brand social benefit and memorable brand experience grouped under in a group of antecedents namely brand encounters. Most recently, Han *et al.* (2020) suggested two groups of antecedents: (1) external motivations drivers which include brand prestige and symbol attractiveness, and (2) internal motivations antecedents which comprise self- congruence and brand experience.

More broadly, Bhattacharya and Sen (2003) argue that the link between a consumer's identity and a company's identity is the core of the identification process. Thus, a company will be an attractive target of consumers' identification when it helps them to satisfy at least one of their three basic principles of self-definitional needs: self-continuity, self-distinctiveness, and self-enhancement. Consequently, the antecedents of consumer-company/brand identification can be divided into three groups of antecedents according to self-definitional needs: antecedents related to self-consistency needs, antecedents related to self-distinctiveness needs, and antecedents related to self-enhancement needs. The texts below present a brief discussion of the definitions of the three basic principles of self-definitional needs and their related antecedents: -

- ***Self-consistency needs:*** Several researchers have noted the importance of self-continuity or self-verification needs as a key motive for why individuals serve to maintain a clear and functional sense of who they are (e.g., Elbedweihy *et al.,* 2016; Kunda, 1999;). Banister and Hogg (2004) define self-continuity (i.e. consistency of self-concept) as "the motive to behave consistently with our views of ourselves" (p. 852). In organizational literature, Dutton *et al.* (1994) argue that the similarity and consistency between the attributes related to the organizational image (e.g., perceived organizational identity) and the attributes that individuals use to define and express themselves, the stronger a member's organizational identification. Notably, there are well-established literature in the marketing domain about the role of similarity between consumer's sense of self and his/her perceptions of commercial entities identities, such as companies or brands in satisfying customer need for a stable and consistent sense of self (e.g., Bhattacharya and Sen, 2003; Escalas and Bettman, 2003; Lam *et al.*, 2012). Previous studies on consumers' identification studied the linkage of several aspects driven by self-consistency needs on their identification with the target (company or brand) among them: company's identity similarity (Bhattacharya and Sen, 2003), congruity with brand personality (Kuenzel and Halliday, 2010; Kumar and Kaushik, 2017; Lam *et al.*, 2013; Stokburger-Sauer, 2010), brand–self similarity (Stokburger-Sauer *et al.*, 2012; Torres *et al.*, 2017; Wolter *et al.*, 2016), and value congruence (Elbedweihy *et al.*, 2016; Tuškej *et al.*, 2013).

- ***Self-distinctiveness needs:*** It has long been recognized in the identity literature that people strive to differentiate themselves from others in interpersonal contexts to feel good about themselves and enhances their self-esteem (e.g., Tajfel and Turner, 1985). According to Tian *et al.* (2001), the need for distinctiveness in the consumption setting is best reflected in the "consumer's need for uniqueness" construct. The role of products and brands as a recognizable symbol of uniqueness is well reported in the marketing literature (e.g., Belk, 1988; Bhattacharya and Sen, 2003; Mittal, 2015). Consumers attempt to match the symbolic images of brands with their own self-concepts, and they use consumption and brands as props for expressing their self-concept (Mittal, 2015). Thus, it is not surprising that the selection of brands with distinctive identities with comparable brands can partially contribute to fulfilling customers' needs for distinctiveness (Bhattacharya and Sen, 2003; Tian *et al.*, 2001). In this regard, several scholars investigated the linkage between consumers' perceptions of the distinctiveness of the company or the brand on their identification with this company or brand (e.g., Kim *et al.*, 2001; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Wolter *et al.*, 2016).
- ***Self-enhancement needs:*** Self-enhancement embodies "the desire to view oneself positively relative to others" (Hogg *et al.*, 1995). In other words, self-enhancement represents the desire that a person has to feel good about oneself and to be validated positively by others he/she cares about. Individuals' need for self-enhancement can be partially fulfilled through their identification with prestigious social entities such as organizations (Dutton *et al.*, 1994; Mael and Ashforth, 1992). This idea was extended in consumer's identification studies, whereas the relationship between consumers' identification and numerous factors related to fulfilling the self-enhancement needs were investigated such as company prestige (Kuenzel and Halliday, 2008), brand prestige (So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Tuškej and Podnar, 2018; Wolter *et al.*, 2016), company reputation (Keh and Xie, 2009), brand reputation (Kuenzel and Halliday, 2010), and the company's construed external image (Ahearne *et al.*, 2005).

Regardless, the different attempts at classifying the antecedents of consumer-company/brand identification into main groups, the extensive review of consumer-company/brand identification literature revealed that there were a variety of the antecedent constructs of consumer identification that have been proposed or investigated in prior literature. Table 3.1 summarizes the key literature on the antecedents of consumer-company/brand identification. Table 3.1 starts with presenting the name of the author/s and the year of the study. Next, the sample on which the study has relied was presented. Then, the main antecedents that have been proposed or investigated were presented align with the main results associated with these antecedents. The next sections present a brief discussion of the most common antecedents of consumer-company/brand identification.

3.3.1.1 Perceived Prestige

Company/brand prestige is a widely studied antecedent of consumer-company/brand identification (Carlson *et al.,* 2009; Chen *et al.*, 2015; Han *et al.*, 2020; Kuenzel and Halliday, 2008; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Tuškej and Podnar, 2018; Wolter *et al.*, 2016) and also appeared in other synonyms like constructed external image (Ahearne *et al.*, 2005), perceived prestige (Bhattacharya *et al.,* 1995), and identity prestige (Bhattacharya and Sen, 2003). Drawing on organizational literature in organizational image and prestige (e.g., Bergami and Bagozzi, 2000; Dutton *et al.*, 1994; Smidts *et al.*, 2001), Ahearne *et al.* (2005) used the term of constructed external image and defined it as "a customer's beliefs about outsiders' perceptions of the company" (p. 577). In a similar vein, Currás-Pérez *et al.* (2009) defined brand prestige as "the positive image which a consumer believes other individuals have of the brand" (p. 551). Stokburger-Sauer *et al.* (2012) defined brand prestige as "the status or esteem associated with a brand". Tuškej and Podnar (2018) argue that brand prestige is broader than the customers' perceptions of how others think about the brand and include the perception of the competitive quality and performance of the brand.

Regardless of the difference in the terminology and the definition of the company/brand prestige, the main argument in the link between company/brand prestige and consumers' identification is that customers seek to identify with prestigious companies or brands to satisfy their self-enhancement needs by viewing themselves in the reflected glory of those companies/brands (Bhattacharya and Sen, 2003; Tuškej and Podnar, 2018). Thus, the company/brand will be an attractive target for customer identification when the customers believe that this company/brand is valued and held in high esteem by relevant others (Ahearne *et al.*, 2005; Currás-Pérez *et al.*, 2009). As shown in Tabel 3.1, previous studies addressing the relationship between company/brand prestige and consumer-company/brand identification reported mixed results and did not offer a clear-cut answer on the relationship between the two constructs. On the one hand, several studies reported the significant influence of company/brand prestige on consumer's identification in a number of contexts, including products (Chen *et al.*, 2015; Tuškej and Podnar, 2018), cars brands (Kuenzel and Halliday, 2008), members of an art museum (perceived organizational prestige), sports fans (Carlson *et al.*, 2009), and in the hospitality industry (Han *et al.*, 2020). On the other hand, others reported different findings (Ahearne *et al.*, 2005; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Wolter *et al.*, 2016). One of the possibilities to explain this contradiction may be the product categories involved in the empirical investigations as the more the brands are visible and have a superior symbolic value, the more the brands will be sensitive to consumers' identification. For instance, Kuenzel and Vaux Halliday (2008) surveyed customers of two global car brands in the UK and reported the positive influence of brand prestige on the identification with the brand. In contrast, Stockburger-Sauer *et al.* (2012) surveyed customers of four product categories (i.e., soft drinks, grocery stores, athletic shoes, and mobile phones), which are less visible and less in its symbolic value compared to cars, Stockburger-Sauer, and her colleagues failed to support the influence of brand prestige on the identification with the brand.

3.3.1.2 Perceived Distinctiveness

Identity distinctiveness generally refers to how an entity's identity (e.g., person, organization, company, brand) is distinguished from the other related entities. In general, people are inclined more to link their identities with entities that they perceive as more distinctive than others to distinguish themselves (Dutton *et al.*, 1994; Mael and Ashforth, 1992; Tuškej and Podnar, 2018). As mentioned above, the individual's need for distinctiveness in the consumption setting is best reflected in the "consumer's need for uniqueness" (Tian *et al.*, 2001). Also, the role of the brands and possession as a recognizable symbol of uniqueness is well recognized in the literature (e.g., Belk, 1988; Bhattacharya and Sen, 2003; Mittal, 2015). Drawing on this argument, as indicated in Table 3.1, several studies have linked customers' perception of the distinctiveness of the company/brand (i.e., perceived distinctiveness) and their identification with this company/brand (Bhattacharya and Sen, 2003; Kim *et al.,* 2001; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Wolter *et al.*, 2016). For instance, Bhattacharya and Sen (2003) in their conceptual framework of consumer-company identification proposed that the more consumers perceive a company's identity to be distinctive from other related companies, the more this company to be an attractive target for their identification.

In the branding context, Stokburger-Sauer *et al.* (2012) defined brand distinctiveness as the perceived uniqueness of a brand's identity in relation to its competitors and argue that the more a customer perceives the identity of the brand to be distinctive from other related brands, the more he/she inclined to identify with that brand. By surveying a large sample of German household consumers, the study's findings supported the predictive role of brand distinctiveness in shaping customer identification with that brand. Wolter *et al.* (2016) followed the opposite perspective and developed a new construct namely brand indistinctiveness as the opposite of brand distinctiveness, which referred to the extent a consumer perceives a brand as similar to competitor brands. Wolter and her colleagues argue that the more consumers see a brand identity as similar to other related brands the more he/she less identify with that brand because it doesn't contribute to satisfying their self-distinctiveness need. The study's results supported the positive influence of brand indistinctiveness on consumer brand disidentification as the opposite of consumer brand identification. In contrast to these findings, So *et al.* (2017) failed to support the direct influence of brand distinctiveness on customer identification with the brand in the hospitality industry.

To conclude, previous research in the relationship between brand distinctiveness and brand identification reported mixed results, whereas several researchers confirmed the positive influence of brand distinctiveness on brand identification (e.g., Stokburger-Sauer *et al.*, 2012), others failed to support that (e.g., So *et al.*, 2017). One of the possibilities that could help to explain this contradiction in the findings maybe is the importance of the brand category and its sensitiveness to customer identification to satisfy distinctiveness needs.

3.3.1.3 Self-Similarity

As previously said, self-continuity or self-verification needs are one of the key self-definitional needs (Banister and Hogg, 2004; Stokburger-Sauer *et al.*, 2012). Marketing literature reported that customers are attracted to relating to the companies and brands that are consistent with their sense of self to maintain a certain self-continuity or stability (Bhattacharya and Sen, 2003; Escalas and Bettman, 2003). Customer's self-continuity needs met through customer’s assessments of the congruity or similarity between his own self-concept and that of relevant entities, such as companies or brands (Bhattacharya and Sen, 2003; Stokburger-Sauer *et al.*, 2012). Previous studies in the congruity or the similarity between customer’ identity and the identity of the company/brand can be summarized into three perspectives:

- The first perspective focuses on the congruity or the similarity between customer's values and that of the brand or the company which is termed value congruence or value congruity (e.g., Tuškej *et al.*, 2013; Elbedweihy *et al.*, 2016).
- The second perspective focuses on the congruity or the similarity in the personal traits between the customer and that of the brand or the company rather than the values. This form of similarity or congruity addressed in the literature under different synonyms such as self–brand congruity (Lam *et al.*, 2012; Lam *et al.*, 2013), self- congruence (Han *et al.*, 2020), self-brand similarity (Stokburger-Sauer *et al.*, 2012; Torres *et al.*, 2017; Wolter *et al.*, 2016), brand personality congruence (Kuenzel and Halliday, 2010; Kumar and Kaushik; 2017; Stokburger-Sauer, 2010).
- The third perspective is the overall perspective which focuses on the similarity between customer’s identity and company/brand identity in both traits and values which are addressed under the name identity similarity (Bhattacharya and Sen, 2003; Wolter *et al.*, 2016).

As Table 3.1 shows, the association between congruity or similarity between customer’s identity and company/brand identity with its different forms and customer's identification with the company/brand is well recognized in the literature (Bhattacharya and Sen, 2003; Stokburger-Sauer *et al.*, 2012; Lam *et al.*, 2013; Tuškej *et al.*, 2013; Elbedweihy *et al.*, 2016; Wolter *et al.*, 2016; Han *et al.*, 2020; Shokri and Alavi, 2019). From a conceptual point of view, Bhattacharya and Sen (2003) proposed that consumers are likely to find a company’s identity to be an attractive target for identification when it matches their own sense of who they are. This link occurs not only because consumers find the self-relevant information inherent in the company identity similar to their personal identities but also because the identification with these companies enable them to maintain and express their personal identities (i.e., their sense of who they are). For instance, a consumer who cares about animals right will be more attracted to the organizations that care about the Ethical Treatment of Animals and the companies that do not engage in animal testing experiments (Bhattacharya and Sen, 2003). Wolter and his colleagues (2016) developed a new construct labeled "self-brand dissimilarity", as a counter to the self-brand similarity construct, and defined it as "the extent to which a consumer perceives a brand as mismatched with his or her own personality and values". The study's results supported the positive impact of self-brand dissimilarity on consumer–brand disidentification. Furthermore, they proposed that the mismatches in a consumer personality and values and that of the brand threatening the consumption of that brand, because consumers strive to fulfill the need for consistency in their self-concept over time and across situations (i.e., self-consistency).

Stokburger-Sauer *et al.* (2012) focused on the similarity in the personality traits and used the term "brand-self similarity" which defined as "the degree of overlap between a consumer's perception of his or her own personality traits and that of the brand" (p. 408) and empirically supported the positive influence of brand-self similarity on the prediction of consumer brand identification. Kuenzel and Halliday (2010) surveyed a sample of car owners in Germany and supported the positive effect of brand personality congruence on the identification with the brand. Most recently, in the hospitality industry, Han *et al.* (2020) provided empirical support to the positive influence of self-congruence, which refers to the congruency between customer's self-concepts and the brand, on customer identification with the brand. Also, the results showed that customer brand identification fully mediates the relationship between self- congruence and customer loyalty. Elbedweihy *et al.* (2016) reported the positive influence of value congruence (i.e., consumers' perceptions of congruence between their own values and a brand's values) on consumer's identification with the brand.

3.3.1.4 Corporate Social Responsibility (CSR)

Marketing literature in studying CSR focuses on customers' perception of the CSR image of the company (Abid *et al.*, 2020; Currás-Pérez *et al.*, 2009; Lichtenstein *et al.*, 2004; Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015; Silva *et al.*, 2020). As in the organizational behavior, there is a debate in the marketing literature regarding the dimensionality of customer's perceptions of CSR (e.g., Currás-Pérez *et al.*, 2009; Lichtenstein *et al.*, 2004; Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015; Silva *et al.*, 2020). In this regard, Pérez and Rodríguez del Bosque (2015) proposed that customer's perception of CSR is a multidimensional construct made up of three dimensions: (1) CSR initiatives towards a society which refers to the customer's perception of the philanthropic actions of the company; (2) CSR oriented to customers which refer to the tangible aspects such as innovation, quality, and compliance to standards; and (3) customer's perception of the CSR concerning employee affairs such as fairly treatment, career development, etc. On the other hand, several scholars conceptualized CSR as a unidimensional construct. For instance, Lichtenstein *et al.* (2004) conceptualized it as a customer's perception of the obligations of the firm to society. Currás-Pérez *et al.* (2009) drew on Brown and Dacin's (1997) definition of CSR, which is focused on the perceptions of the societal obligations of the firm.

Regardless of the difference in the conceptualization and operationalization of CSR, marketing literature well documented the importance of CSR as a marketing tool have several valuable consequences such as consumers' perceptions of consumer–company congruence (consumers' perceived congruence between their own characters and that of the company) (Marin and Ruiz, 2007; Sen and Bhattacharya, 2001), the attractiveness of the company's identity (Marin and Ruiz, 2007; Silva *et al.*, 2020), purchase intention (Sen and Bhattacharya, 2001), consumer satisfaction (Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015), consumer trust (Abid *et al.*, 2020; Martínez and Rodriguez del Bosque, 2013), and consumer loyalty (García de Los Salmones *et al.*, 2005; Silva *et al.*, 2020). Also, as indicated in Table 3.1 the link between customers' perceptions of the CSR in different terms such as CSR image (Chen *et al.*, 2015; Pérez and Rodríguez del Bosque, 2015), CSR identity (Currás-Pérez, 2009), CSR (Deng and Xu, 2017; He and Li, 2011; Marin *et al.,* 2009), perception of CSR (Lichtenstein *et al.*, 2004), CSR associations (Martínez and Rodriguez del Bosque, 2013), and consumers' proneness to value CSR (Silva *et al.*, 2020) and customer's identification with the company is widely investigated in the literature. For instance, Martínez and Rodriguez del Bosque' (2013) surveyed 382 fourth-year students regarding national hotels they had spent the last year holidays and supported the positive influence of CSR on customer's identification. In a service context, Pérez and Rodríguez del Bosque (2015) sought to investigate the influence of the three dimensions of customer's perception of CSR image (society, customers, and employees) on customer's identification with the company, based on 476 customers of commercial banks in Spain they reported that customer's identification with the company is positively related only to customer's perception of CSR oriented to customer.

On the other side, others highlighted the link between customers' perceptions of CSR and their identification with the company in an indirect way (Chen *et al.*, 2015; Currás-Pérez *et al.*, 2009). In this regard, Currás-Pérez *et al.* (2009) argue that when a customer has a good image of the social role of the company, this enhances the attractiveness of the company as a target of identification, so they incorporated company attractiveness as a mediating variable in the relationship between customer's perception of CSR image and customer's identification with the company. Chen *et al.* (2015) besides their investigation of the direct relationship between customers' perception of the CSR and their identification with the company also they have reported the positive indirect relationship between the two variables through brand prestige.

In sum, when a company behaves in a socially responsible manner, it is more likely to affect positively consumers' identification with the company. This effect can occur directly without the need for intermediate evaluations of the company's identity or indirectly by included factors like perceived prestige and perceived attractiveness (Currás-Pérez *et al.*, 2009; Marin and Ruiz, 2007). The main argument in support of these relationships is when a company behaves in a socially responsible manner, it is more likely that consumers will feel attracted to it not only because consumers are likely to infer that it has certain desirable traits that resonate with their sense of self, but also through their associations with the company they can express a more ethical and social image that can enhance from his/her self-esteem (Currás-Pérez *et al.*, 2009; Lichtenstein *et al.*, 2004; Marin and Ruiz, 2007).

3.3.1.5 Perceived Attractiveness

Perceived attractiveness can be defined as the positive evaluation of the entity's identity (e.g., organization, company, brand) (Currás-Pérez *et al.*, 2009). Consumers' evaluation of the attractiveness of the company/brand identity is assessed in relation to how the company/brand identity helps them to satisfy their self-definitional needs (Bhattacharya and Sen, 2003; Currás-Pérez *et al.*, 2009). Consumer-company/brand identification is more likely to occur when the consumer finds the company or brand identity to be attractive (Ahearne *et al.*, 2005). Identifying with a company/brand that is perceived to have an attractive identity may result in benefits to consumers in terms of self-enhancement, as the customer may develop a more positive self-evaluation due to his/her identifying with an attractive company/brand (Elbedweihy *et al.*, 2016; Marin *et al.*, 2009). As shown in Table 3.1 the link between perceived attractiveness of the company/brand identity and consumer's company/brand identification is well reported in the literature (Bhattacharya and Sen, 2003; Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009; Kim *et al.*, 2001; Marin and de Maya, 2013; Marin *et al.*, 2009). This research has documented that the greater a consumer perceives a company's/brand's identity to be attractive, the stronger is a consumer's identification with that company/brand.

3.3.1.6 Brand Experience

Table 3.1 shows that brand experience is one of the important antecedent factors of consumer-brand identification that attracted researchers' interest in the past few years (Han *et al.*, 2020; Jones and Runyan, 2013; Kumar and Kaushik, 2020; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Torres *et al.*, 2017). Also, brand experience is one of the factors that appeared in the different attempts to classifying the antecedents of consumer identification with the company/brand into main categories, that have been mentioned previously. For instance, Han *et al.* (2020) incorporated brand experience under the group of internal motivations antecedents of consumer-brand identification in his classification, So *et al.* (2017) merged memorable brand experience in the factors of brand encounters antecedents group, Stokburger-Sauer *et al.* (2012) and

Torres *et al.* (2017) incorporated memorable brand experience under the group of affective drivers of consumer-brand identification.

In brief, brand experience has been defined in different ways in the literature (e.g., Ha and Perks, 2005; Brakus *et al.*, 2009), but Brakus *et al.*'s (2009) definition of brand experience is widely acknowledged in the marketing literature (e.g., Han *et al.*, 2020; Jones and Runyan, 2013; Kumar and Kaushik, 2020; So *et al.*, 2017). Brakus and his colleagues (2009, p. 53) defined brand experience as "subjective, internal customer responses (sensations, feelings, and cognition) and behavioral responses are also evoked by brand-related stimuli that are part of a brand's design and identity, packaging, communications, and environments". However, most brand experiences engender through direct consumption of the brand, brand experiences also could be shaped indirectly through the exposure of brand advertising and marketing communication (Brakus *et al.*, 2009; Han *et al.*, 2020). The role of brand experience as a driver of several favorable outcomes such as brand satisfaction, brand trust, and brand loyalty are well inherent in the marketing literature (e.g., Ha and Perks, 2005; Brakus *et al.*, 2009). Furthermore, as Table 3.1 illustrates the role of brand experience as an antecedent factor of consumer identification with the brand has documented in several studies (Han *et al.*, 2020; Jones and Runyan, 2013; Kumar and Kaushik, 2020). The argument of these studies to support the link between brand experience and consumer's identification with the brand is that the positive and the favorable brand experience enhances from consumer's positive evaluation of the brand identity, which will augment the attractiveness of the brand as a target for identification.

From another perspective for brand experience, several studies focused on the position of the brand experience in consumer's memory, which is termed memorable brand experiences, (So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Torres *et al.*, 2017). Stokburger-Sauer *et al.* (2012, p. 410) defined memorable brand experiences as "the extent to which consumers have positive, affectively charged memories of prior brand experiences". Indeed, brands differ in the extent to which they offer their consumers memorable experiences, while some brands do not occupy a salient position in consumers' memory even with frequent use, other brands even when used infrequently, can leave an indelible, affectively charged mark on the consumer's consciousness, allowing the consumer to relive the positive experience periodically (So *et al.*, 2017;

Stokburger-Sauer *et al.*, 2012). Consumer research on autobiographical memories and narrative processing have suggested that the consumption of certain brands is associated with greater self-referencing and the construction of brand-related stories or narratives, which tends to improve the strength of the connections between the consumer and the brand (Escalas, 2004). Drawing on this argument several studies proved that the more a consumer has memorable brand experiences, the more he/she will identify with that brand (So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Torres *et al.*, 2017) (see Table 3.1 for more detail of these studies).

3.3.1.7 Brand Social Benefits

The notion that brands are major carriers of social and cultural meaning is well reported in the branding literature (So *et al.*, 2017; Thompson *et al.*, 2006). Stokburger-Sauer *et al.* (2012, p. 410) defined the brand social benefits as "the social interaction opportunities and gains afforded by a brand". Prior studies mentioned that among the social benefits provided by certain brands is its role in helping individuals to strengthen their membership in their social reference groups as the person often uses brands used by his/her reference group (Escalas and Bettman, 2003; Stokburger-Sauer *et al.*, 2012). Furthermore, brands represent an essential device for contacting the person with the other admirers of a brand (brand community) (Muniz and O'Guinn, 2001).

As Table 3.1 demonstrates several studies supported the role of brand social benefits as a driver of consumer's identification with the brand. As the more a brand help consumers to connect with important others (groups, communities, or subcultures), the more they tend to identify with that brand (So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Torres *et al.*, 2017).

3.3.1.8 Other Antecedents

In addition to the aforementioned antecedents factors of consumer-company/brand identification, as Table 3.1 shows, prior literature also revealed other variables served as drivers of consumer's identification with the company/brand such as perceived salesperson characteristics (Ahearne *et al.*, 2005), personal connection with salespeople (Marin and de Maya, 2013), social identity with the brand's community (Bagozzi and Dholakia, 2006), brand community identification (Zhou *et al.*, 2012), employee-company identification

(Homburg *et al.*, 2009), customer orientation (Boenigk and Helmig, 2013; Homburg *et al.*, 2009), corporate communication (Kuenzel and Halliday, 2008), reputation (Keh and Xie, 2009; Kuenzel and Halliday, 2010), need for affiliation (Marin and de Maya, 2013), customer-to-customer similarity (Elbedweihy *et al.*, 2016), and brand anthropomorphism (Tuškej and Podnar, 2018). These antecedents of consumer-company/brand identification were not discussed in detail because they received less attention in the literature. Also, because these antecedents do not relate directly and do not offer any support to the hypothesized relationships in this study as displayed in the next chapter.

Table 3.1 Summary of the Previous Key Studies in the Antecedents of Consumer-Compa

Author/s (Year)	Sample	Antecedents variable
Bhattacharya *et al.* (1995)	306 members of an art museum located in a major southeastern city in the United States. The sample was selected consisted of those who had been members of the museum for at least one year.	*Organizational and pro* – Perceived organiz – Expectation confi *Affiliation characteristi* – Visibility of mem – Participation in si – Length of membe *Activity characteristic* – Contact (visiting – Donation (NS)
Kim *et al.* (2001)	130 users of cellular phone brands in Korea.	– The attractiveness
Bhattacharya and Sen (2003)	-	– Identity similarity – Identity distinctiv – Identity prestige (
Lichtenstein *et al.* (2004)	1000 customers of a national food chain in the United States.	– Perception of CSR
Ahearne *et al.* (2005)	The model tested in "a consultative selling context of pharmaceutical sales reps calling on physicians" using 178 high-prescribing physicians.	– Constructed exter – Perceived salespe – Perceived compar

Author/s (Year)	Sample	Antecedents variable
Bagozzi and Dholakia (2006)	154 members of Harley-Davidson Motorcycle small group brand communities.	– Social identity wi
Kuenzel and Halliday (2008)	241 users of two global car brands (i.e., Ford and Mercedes-Benz) in the UK.	– Brand prestige (S) – Satisfaction (S) – Corporate commu
Carlson *et al.* (2009)	162 university students in the United States. Students were selected from sports marketing classes due to their interest in the focal basketball team.	– Team distinctiver – Team prestige (S)
Currás-Pérez (2009)	296 Spanish customers of Mapfre insurance company.	– CSR identity (S)
Currás-Pérez *et al.* (2009)	299 Spanish consumers of toiletries and cosmetics products over the age of 18.	– Brand attractivene
Homburg *et al.* (2009)	597 customers from 109 travel agencies in Germany.	– Customer orienta – Employee-compa
Keh and Xie (2009)	351 customers from three Chinese companies in different service industries.	– Corporate reputa – Customer trust (S
Marin *et al.* (2009)	400 customers from a regional bank in Spain.	– CSR (S) – Identity attractive
Kuenzel and Halliday (2010)	1170 car owners in Germany	– Ideal brand perso – Reputation (S)
Stokburger-Sauer (2010)	Sample of Diabetes patients using Brand X blood sugar meters.	*Brand community integ* – Customer–brand – Customer–compa

Author/s (Year)	Sample	Antecedents variable
		– Customer–other c
Bodet and Bernache-Assollant (2011)	395 spectators of French ice hockey first division clubs.	– Customer satisfac The results also sugg with the team was fo between customer sat
Camarero and Garrido (2011)	231 members of Spanish museums of fine arts.	– Material benefits preferential treat through membe discounts in gift s etc." – Non-Material be symbolic, social, obtained through
He and Li (2011)	268 customers of mobile telecommunications services in Taiwan.	– Corporate social r – Service quality (S
Stokburger-Sauer (2011)	421 Germans as potential visitors of the Republic of Ireland as a holiday destination.	– Personality congr – Brand embedded
He *et al.* (2012)	199 British users of mobile phones using the Mall-intercept method of survey. The questionnaire asked the participants to refer to the main brands of their current mobile phones when answering the questions onsite.	– Brand Identity (S

Author/s (Year)	Sample	Antecedents variable
Lam *et al.* (2012)	5919 consumers of 10 brands in five product categories (i.e., beer, sportswear, cell phones, fast-food chains, and e-commerce sites) from 15 countries.	– Self-brand incong – Perceived quality
Stokburger-Sauer *et al.* (2012)	781 consumers of four product categories, that is athletic shoes, mobile phones, soft drinks, and grocery stores. This sample is a part of a panel of German household consumers.	*Cognitive drivers* – Brand prestige (N – Brand distinctiver – Brand-self similar *Affective drivers* – Memorable brand – Brand social bene – Brand warmth (S) –
Zhou *et al.* (2012)	437 members of an online Chinese car club community.	– Brand community
Becerra and Badrinarayanan (2013)	181 undergraduate students from "a large Southwestern university in the US". The students have filled the questioner with regard to two brands of two different product categories (athletic shoes and cars).	– Brand trust (S)
Boenigk and Helmig (2013)	*Sample 1:* 314 donors to a nonprofit organization working in the field of cancer prevention and therapy in Germany. *Sample 2:* 298 participants from a blood donation online community in Germany.	– Donor orientation – Donor satisfaction

Author/s (Year)	Sample	Antecedents variable
Jones and Runyan (2013)	Study 1: 100 customers single-brand retailers in the United States. Study 2: 259 customers single-brand retailers in the United States.	– Brand experience
Lam *et al.* (2013)	635 users of cell phones in Spain. This sample is a part of a panel sample of Spanish consumers managed by a European online panel research company.	– Consumer innate – Perceived quality – Self–brand congru
Marin and de Maya (2013)	400 customers from a regional bank in Spain.	– Need for affiliatio – Personal connecti – Identity attractive
Martínez and Rodriguez del Bosque (2013)	382 fourth-year students were surveyed regarding national hotels they had spent the last year holidays in Spain.	– CSR associations – Customer trust (N
Tuškej *et al.* (2013)	596 consumers of different brands and different product categories completed the online survey about their favorite brands.	– Value congruity (
Chen *et al.* (2015)	252 undergraduate college students who had goods shopping experiences in Taiwan.	– CSR image (S) – Brand prestige (S)
Pérez and Rodríguez del Bosque (2015)	476 customers of commercial banks in Spain.	*Three dimensions of c image* – CSR society (NS) – CSR customers (S – CSR employees (N

Author/s (Year)	Sample	Antecedents variable
Elbedweihy *et al.* (2016)	293 British respondents, the respondents "were asked to complete the survey with respect to their favorite brand in two product categories: mobile phones and TVs".	– Value congruence – Customer-to custo product category – Brand attractivene
Wolter *et al.* (2016)	649 consumers of the top seven selling beer brands in the United States.	– Self-brand similar – Brand prestige (N – Brand distinctiven
Deng and Xu (2017)	349 Chinese consumers of two product categories.	– Corporate social r
Kumar and Kaushik (2017)	342 foreign tourists visiting Dharamsala in India.	– Destination perso – Destination trust
So *et al.* (2017)	600 customers of airline brands in Australia, who had traveled by air in the past 12 months.	– Brand attractivene *Brand Identity* – Brand prestige (N – Brand distinctiven *Brand Encounters* – Memorable brand – Brand social bene The findings also su fully mediates the distinctiveness, and r a significant indire

Author/s (Year)	Sample	Antecedents variable
		identification, but par social benefits on cust
Torres *et al.* (2017)	1173 undergraduate students "who were registered in the academic year 2014/2015 at the University of Coimbra regarding the Sagres brand, which is a market leader in the Portuguese beer market".	<u>*Cognitive drivers*</u> – Brand-self similar – Brand identity <u>*Affective drivers*</u> – Brand social bene – Memorable brand "Using asymmetric a qualitative comparat study indicated tha importance than cog consumer-brand id solutions for high CB
Augusto and Torres (2018)	280 customers of retail banks in Portugal.	– Brand attitude (S) – Electronic word-o
Tuškej and Podnar (2018)	249 consumers of "five product categories cars, cosmetics, mobile phones, fashion and food, and beverage. This sample is a part of one of the largest online panels of Slovenian consumers".	– Brand prestige (S) – Brand anthropom
Abid *et al.* (2020)	312 regular consumers of national brands of organic foods sold through mass retail in France.	<u>*Corporate social respon*</u> – Environment soci – Philanthropy soci

Author/s (Year)	Sample	Antecedents variable
Han *et al.* (2020)	297 South Korean customers who had experienced global chain restaurant brands (e.g., T.G.I. Friday's, Starbucks, Burger King, Pizza Hut, KFC, etc.).	External motivations – Brand Prestige (S) – Symbol attractive Internal motivations – Self- congruence (– Brand experience
Kumar and Kaushik (2020)	321 participants. "The participants were asked to consider one product and one service category: mobile (as product brand) and mobile services provider (as service brand) in India".	Brand experience dimen – Sensory (S) in bot – Affective (S) in bo – Behavioral (S) in b Intellectual (S) in both
Silva *et al.* (2020)	356 participants, the participants were invited to respond to the questionnaire considering their preferred brand of perfume.	Corporate social respon – CSR-Economic di – CSR- Ethical legal – CSR - Philanthrop

Note: (S)= hypothesized relationships are empirically supported; (NS)= hypothesized relationships are not empi
papers, hypothesized relationships are not empirically examined.

3.3.2 Consequences of Consumer-Company/Brand Identification

Social Identity Self-Categorization Theories, as clarified previously in the previous chapter, proposes that individuals inclined to associate with attractive social groups to enhance their self-concept, which in turn influences their behaviors and attitudes toward their groups and other relevant groups (Tajfel and Turner, 1979; 1986; Turner *et al.*, 1987). Drawing on this argument organizational behavior literature had documented the positive influence of organizational identification as a form of social identification on employees' in role behaviors (e.g., job performance) and willingness to expend additional effort on behalf of the organization that can translate into organizational citizenship behaviors (extra-role behaviors) (Ashforth and Mael, 1989; Bergami and Bagozzi, 2000; Dukerich *et al.*, 2002; Dutton *et al.*, 1994; Van Dick *et al.*, 2006). In the consumer-company/brand identification setting, Bhattacharya and Sen (2003) argue that identifiers play a clear stake in company achievement, because they will be loyal to the company and its products, committed and desire to achieve the company goals and increase its welfare, promote the company to the others socially and physically, ignore any undesirable information they receive about the company, and will be more prone to be forgiving about the company mistakes. Accordingly, Bhattacharya and Sen (2003) classify consumers' behaviors resulting from their identification into a continuum from low levels such as loyalty to high levels such as promotion. In a similar vein, Lam *et al.* (2012) classify the behavioral consequences of consumer's identification with the brand into two groups of behaviors: identity sustaining behaviors which refer to consumer's behaviors to maintaining the relationship with the brand (e.g., repeat purchasing) and identity promoting behaviors which refer to consumer's behaviors to promote and advance the brand for others (e.g., positive word-of-mouth).

Additionally, some scholars drew on Bhattacharya and Sen's (2003) classification of the behavioral consequences of consumers' identification with the company and suggest that these behaviors could be classified into two groups of behaviors: customer in-role behaviors and customer extra-role behaviors (Ahearne *et al.*, 2005; Elbedweihy, 2014; Elbedweihy *et al.*, 2016; Lam, 2012).

In-role behaviors refer to "the extent to which an individual meets the basic expectations and responsibilities prescribed by a related party" (He *et al.*, 2017, p. 3). In a customer context, a number of in-role behaviors have been studied, such as customer loyalty (Elbedweihy *et al.*, 2016; Lam, 2012), product utilization (Ahearne *et al.*, 2005), games watched in the sporting setting (Carlson *et al.*, 2009), and repurchase intention (Currás-Pérez *et al.*, 2009; Lam *et al.*, 2012). On the other side, customer extra-role behaviors refer to customer behaviors that not purely related to self-interest and go beyond the expectations of the company such as positive word-of-mouth, recruiting other customers, resilience to negative information, and improvement suggestions (Ahearne *et al.*, 2005; Elbedweihy *et al.*, 2016).

Regardless, the attempts at classifying the consequences of consumer-company/brand identification, the extensive review of consumer identification literature revealed that there were a variety of the consequence constructs of consumer identification that have been proposed in prior literature (see Table 3.2). The most common consequences of consumer-company/brand identification will be discussed in brief in the following sections.

3.3.2.1 Customer Commitment

Customer commitment is one of the focal concepts in the relationship marketing literature (Brown *et al.*, 2005; Morgan and Hunt 1994). Customer commitment to a brand is "a psychological disposition that implies a positive attitude toward the brand and a willingness to maintain a valued relationship with it" (Albert and Merunka, 2013; Chaudhuri and Holbrook, 2001). In other words, customer commitment to a brand reflects "the degree to which a brand is firmly entrenched as the only acceptable choice within such a product class" (Warrington and Shim, 2000, p. 764).

Like previous literature in the distinguishing between organizational identification and organizational commitment (e.g., Ashforth *et al.*, 2008; Ashforth and Mael, 1989; Bergami and Bagozzi, 2000; Pratt, 1998; Van Dick, 2004), marketing scholars argue that consumer identification and consumer commitment are distinct constructs, as consumer's commitment embodies a positive attitude toward the company/brand while consumer's identity and the company's/brand's identity remain separate entities, whereas consumer identification develops mainly because of a company's/brand's identity is important to consumer's identity (Currás-Pérez, 2009; Elbedweihy, 2014; Tuškej *et al.*, 2013). Furthermore, as Table 3.2 shows marketing literature contains mounting evidence that consumer identification with the company/brand is a driver for consumer commitment to this company/brand (Abid *et al.*, 2020; Albert and Merunka, 2013; Camarero and Garrido, 2011; Currás-Pérez, 2009; Keh and Xie; 2009; Rather, 2018; Tuškej *et al.*, 2013; Zhou *et al.*, 2012). For instance, Tuškej *et al.* (2013) in their study of consumers' identification with the brand among consumers of different brands of different product categories find that consumer's identification with the brand positively related to consumer's commitment to the brand.

3.3.2.2 Customer loyalty

Customer loyalty is one of the most studied constructs in marketing literature because of its role as the ultimate goal of marketing activities. However, substantial debate exists in the literature regarding the conceptualization and operationalization of customer loyalty. In this regard, customer loyalty was first defined by the behavioral dimension manifested on repeated purchases of the brand (Bodet and Bernache-Assollant, 2011). Day (1969) criticizes the focus only on the behavioral dimension in studying customer loyalty, and he suggested an attitudinal dimension to discriminate between what is called true loyalty and spurious loyalty, which consists of a repeated and automatic behavior. Drawing on this perspective Oliver (1999, p. 34) defined customer loyalty as "a deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior". This definition consists of a behavioral dimension manifested in repeated purchases of product/service and an attitudinal dimension which refers to a degree of dispositional commitment in terms of some unique value associated with the brand (Chaudhuri and Holbrook, 2001). Indeed, Oliver's (1999) definition of customer loyalty and the two-dimensional approach have become the stander to define and analyze customer loyalty in the literature (e.g., Chaudhuri and Holbrook, 2001; Homburg *et al.*, 2009; Martínez and Rodriguez del Bosque, 2013; Stokburger-Sauer *et al.*, 2012).

Interestingly, as Table 3.2 shows customer loyalty is a widely studied consequence variable of customers' identification in different settings for example tourism (Berrozpe *et al.*, 2019; Kumar and Kaushik, 2017; Stokburger-Sauer, 2011), nonprofit organization (Boenigk and Helmig, 2013), sports (Bodet and Bernache-Assollant, 2011), products (Deng and Xu, 2017; Elbedweihy *et al.*, 2016; He *et al.,* 2012; Popp and Woratschek, 2017a; Popp and Woratschek, 2017b; Silva *et al.*, 2020; Stokburger-Sauer, 2010; Stokburger-Sauer *et al.*, 2012; Wolter *et al.*, 2016), mobile phones (Elbedweihy *et al.*, 2016; He *et al.* 2012; Kim *et al.* 2001), hospitality industry (Han *et al.*, 2020; Homburg *et al.*, 2009; Martínez and Rodriguez del Bosque, 2013; Nam *et al.*, 2011; Rather, 2018; So *et al.*, 2013), car owners (Kuenzel and Halliday 2010), baking service (Marin *et al.*, 2009), and other services (He and Li 2011; Popp and Woratschek, 2017b).

However the findings of the majorate of these studies supported that the more a customer identifies with a target of identification, the more loyal that person will be to that target (e.g., Berrozpe *et al.*, 2019; Han *et al.*, 2020; Homburg *et al.*, 2009; Kuenzel and Halliday, 2010; Silva *et al.*, 2020; Stokburger-Sauer *et al.*, 2012), other studies failed in supporting the relationship between customer's identification and customer loyalty (Deng and Xu, 2017; Elbedweihy *et al.*, 2016; Kim *et al.,* 2001; So *et al.*, 2013). For instance, Kuenzel and Halliday (2010) in their study of customer identification with the brand among car owners in Germany supported the significant influence of the identification with the brand on the loyalty toward that brand. On the other side, Elbedweihy *et al.* (2016) in their study of brand identification among British consumers of their favorite brand in two product categories (i.e., mobile phones and TVs) reported that consumer identification with the brand is not related to consumer loyalty in both product categories. One of the possibilities to explain this contradiction may be the product categories involved in the empirical investigations as the more the brands are visible and have a superior symbolic value, the more the brands will be sensitive to consumers' identification, and the more the consumers to be loyal to that brand.

Other researchers studied the effect of customer identification with the brand on customer loyalty to the brand indirectly by incorporating mediating variables in the relationship between the two constructs like customer satisfaction (He and Li, 2011). In another study, He and his colleagues (2012) supported the linkage between customer identification and customer loyalty through three different mediation paths: customer trust, customer satisfaction, and perceived value.

In addition to studies that dealt with the relationship between customer-company/brand identification and consumer loyalty in its broad sense, other scholars focused on studying the influence of customer-company/brand identification on specific behavioral intentions that are an integral part of a customer loyalty construct such as repurchase intentions and the positive word-of-mouth communication. The next sections present a detailed discussion of such relationships.

3.3.2.2.1 Repurchase Intentions

Although repeat purchase or repurchase intentions is an integral part of customer loyalty construct as mentioned above, studying the influence of customer identification with the brand on repurchase intentions of that brand was widely investigated in the literature in different settings (see Table 3.2) such as products (Becerra and Badrinarayanan, 2013; Chen *et al.*, 2015; Currás-Pérez *et al.*, 2009; Deng and Xu, 2017; Silva *et al.*, 2020; Torres *et al.*, 2017), in the tourism sector, manifested in brand visit intentions (Stokburger-Sauer, 2011), car brands (Kuenzel and Halliday, 2008), banking services (Pérez and Rodríguez del Bosque, 2015), insurance services (Currás-Pérez, 2009), and in other services sectors (Keh and Xie, 2009). The results of these studies reported discordant findings in the linkages between customer identification with a brand and repurchase intentions of that brand. On the one hand, several studies find customer identification was related positively to repurchase intentions (Chen *et al.*, 2015; Currás-Pérez *et al.*, 2009; Deng and Xu, 2017; Keh and Xie, 2009; Kuenzel and Halliday, 2008; Pérez and Rodríguez del Bosque, 2015; Stokburger-Sauer, 2011; Torres *et al.*, 2017). For instance, Pérez and Rodríguez del Bosque (2015) in their study of customer identification with the company among customers of commercial banks in Spain find that customer identification with the bank positively related to customer repurchase intentions manifested in two items ("I always contact my banking company when I need a new banking service; My banking company is always my first choice when I need to contract a new banking service"). On the other side, others reported different results (Becerra and Badrinarayanan, 2013; Currás-Pérez, 2009; Silva *et al.*, 2020). For instance, Currás-Pérez (2009) in his study of customer identification with the company among Spanish customers of Mapfre insurance company reported that customer's identification with the company not related to repurchase intentions of insurances services captured in three items a sample item of these items "The next time, when I need to take out insurance, I will do it with (brand)". Silva *et al.* (2020) investigated the relationship between consumers'' identification with their preferred brand of perfume and their purchasing intention. They find that consumer's identification is not related significantly with the purchasing intention. These results indicate that although a high consumer's identification with the brand is a necessary condition, it is not a sufficient condition for a high purchase intention.

3.3.2.2.2 Word-of-Mouth Communication

Word-of-mouth communication is another focal construct in the marketing literature and well recognized as an effective tool for shaping consumers' attitudes and behaviors (Brown *et al.*, 2005). Hennig-Thurau *et al.* (2002) in their influential work of relationship marketing outcomes defined positive word-of-mouth communication as all informal communications between a customer and others concerning evaluations of product or service, which can be manifested in several aspects such as relating pleasant and recommendations to others.

Bhattacharya and Sen, (2003) suggest that "consumers who identify with a certain company/brand have a vested interest in the success of the brand/company to enhance their self-identity, and want to ensure that their affiliation with this company/brand is communicated to the relevant others in the most positive light possible". Thus, the more a consumer identifies with the brand/company, the more he/she is to promote the company/brand both socially (i.e., word-of-mouth communication) and physically (e.g., display of its markers) (Ahearne *et al.*, 2005; Bhattacharya and Sen, 2003). Drawing on this argument, as presented in Table 3.2, previous studies reported the positive influence of consumer identification with the company/brand in various forms or names of consumer's word-of-mouth communication such as positive word-of-mouth (Kim *et al.*, 2001; Kuenzel and Halliday, 2008; Popp and Woratschek, 2017a, 2017b; Tuškej *et al.*, 2013), recommend intention (Deng and Xu, 2017; Pérez and Rodríguez del Bosque, 2015), advocacy (Kumar and Kaushik, 2017;

Stokburger-Sauer, 2010, 2011; Stokburger-Sauer *et al.*, 2012), positive brand referrals (Becerra and Badrinarayanan, 2013), and unfavorable statements about competing brands (Becerra and Badrinarayanan, 2013).

3.3.2.3 Other Consequences

In addition to the aforementioned consequences, as Table 3.2 shows, prior literature also revealed other variables served as consequence variables of consumer identification with the company/brand such as brand love (Albert and Merunka, 2013), brand community promotion (Casaló *et al.*, 2010), consumers association with a brand community (Jones and Runyan, 2013), consumer resilience to negative information about the company/brand (Bhattacharya and Sen 2003; Elbedweihy *et al.*, 2016), customer donations for nonprofits that cooperation supports (Lichtenstein *et al.*, 2004), price image (Popp and Woratschek (2017b), price premium (Augusto and Torres, 2018; Keh and Xie, 2009), consumers' active engagement in brand activities on social media (Tuškej and Podnar, 2018), and emotional attachment (Zhou *et al.*, 2012). These consequences of consumer-company/brand identification were not discussed in detail because they received less attention in the literature. Also, because these consequences do not relate directly and don't offer any support to the hypothesized relationships in this study as displayed in the next chapter.

3.3.3 Debated Relationships

In addition to the aforementioned antecedents and consequences factors of consumer-company/brand identification, the extensive review of consumer-company/brand identification literature revealed that there are inconsistent findings in the direction of the relationship between consumer-company/brand identification and set of factors. Whereas some studies supported the role of these factors as antecedents factors of consumer identification with the company/brand, other studies supported the opposite view and supported the role of these factors as consequences factors of consumer-company/brand identification. These factors will be highlighted in the following sections.

3.3.3.1 Perceived Quality

Zeithaml (1988) in her seminal article "Consumer Perceptions of Price, Quality, and Value" argues that quality, in general, refers to "the superiority or excellence and by extension perceived quality can be defined as the consumer's judgment about a product's or a service's overall excellence or superiority". As Table 3.1 and Table 3.2 show previous studies appear to support two opposite predictions in the direction of the relationship between perceived quality and consumer identification with the company/brand.

On the one hand, several scholars posit that when consumers perceive the brand as having a high quality, they are more likely to identify strongly with the brand (He and Li, 2011; Lam *et al.*, 2012; Lam *et al.*, 2013). As the perceived quality positively affects the attractiveness of the focal company's/brand's identity as a valid target for identification (He and Li, 2011). In this regard, Lam and his colleagues (2013) in their study of consumer-brand identification among users of cell phones in Spain supported the positive influence of perceived quality on the identification with the brand. In a similar vein, He and Li (2011) using a sample of customers of mobile telecommunications services in Taiwan documented the significant influence of perceived service quality on customers' identification with the brand.

From the other perspective, others argue that the psychological attachment resulting from the identification process may affect positively consumers' evaluations and judgment of the product (Ahearne *et al.*, 2005; So *et al.*, 2013). In this regard, So *et al.* (2013) investigated the influence of customer's identification with the brand on perceived service quality. Using a sample of Australian hotel customers their results offered empirical support to the direct influence of the identification with the brand on customers' perceived service quality.

3.3.3.2 Customer Satisfaction

The central role of customer satisfaction in building and sustaining strong customer relationships is one of the fundamentals in the marketing literature (Arnett *et al.*, 2003; Bhattacharya *et al.*, 1995; Oliver, 1980). Customer satisfaction occurs when "the performance of a product or service meets or exceeds the customer's expectations" (Oliver, 1980; Yi and La, 2004). In other words, customer satisfaction is a direct function of the extent to which a person's expectations of a company or brand are unmet or exceeded (Oliver and Swan, 1989). As Table 3.1 and Table 3.2 display previous studies appear to support two opposite predictions in the direction of the relationship between customer satisfaction and customer-company/brand identification.

On the one hand, several scholars posit that the higher levels of customer satisfaction lead to enhancing and perceive the company's/brand's identity as more salient, and this will further strengthen their attachment and feelings of oneness with that company/brand. Drawing on this argument several studies have advanced models and proved that customer satisfaction with a certain company/brand is a driver of customer identification with that company/brand (Bhattacharya *et al.*, 1995; Bodet and Bernache-Assollant, 2011; Boenigk and Helmig, 2013; Kuenzel and Halliday, 2008). For instance, Bhattacharya *et al.* (1995) drawing on a sample of members of an art museum evidenced that the more satisfied a person is with an organization's offerings, the greater is the identification. In the same vein, Kuenzel and Halliday (2008) in their study in brand identification among customers of two global car brands (i.e., Ford and Mercedes-Benz) in the UK also find customer satisfaction with the brand is related to the customer's identification with the brand.

On the other hand, several scholars argue that the higher levels of customer identification lead to a more favorable overall judgment about the target of identification, and they are more likely to remain satisfied with this entity even when their expectations are not fully met. In this regard, He and Li, (2011) maintained that customers with stronger brand identification tend to more satisfied with the brand due to his/her psychological attachment with this brand, also the psychological attachment resulting from the identification with the brand tend to make the customer less satisfied even the performance of the brand did not meet his/her expectations. Drawing on this argument several studies have advanced models and proved that customer's identification with a certain company/brand is a driver of customer satisfaction with that company/brand (Camarero and Garrido, 2011; He and Li, 2011; He *et al.*, 2012; Martínez and Rodriguez del Bosque, 2013; Nam *et al.*, 2011; Pérez and Rodríguez del Bosque, 2015; Popp and Woratschek, 2017a, 2017b; Rather, 2018). For instance, Camarero and Garrido (2011) in their study of customer identification among members of a Spanish museum of fine arts found that customer's identification with the museum was related significantly to customer satisfaction with the museum. Popp and Woratschek (2017b) using a large sample of customers of 10 service and product brands demonstrated that a higher level of consumer-brand identification positively influences customer satisfaction with a brand.

3.3.3.3 Customer Trust

Trust exists when one partner confident in the reliability and integrity of the exchange partner, and it should be considered essential to any relational exchange (Morgan and Hunt, 1994). The centrality of trust in building long and enduring customer relationships is well documented in the marketing literature (e.g., Chaudhuri and Holbrook, 2001; Morgan and Hunt, 1994). However, theoretical considerations and empirical investigation indicate that customer trust and customer identification are related to each other. As Table 3.1 and Table 3.2 show there is disagreement on the direction of the relationship between the two constructs.

On the one hand, several scholars argue that customers tend to identify with trustworthy entities (e.g., corporate, brand) to communicate their self-definition and enhance their self-esteem; therefore, customer trust is a driver of customer identification (Becerra and Badrinarayanan, 2013; Keh and Xie, 2009; Kumar and Kaushik, 2017). For instance, Keh and Xie (2009) in their study of customer identification with the company among customers from three Chinese companies in different service industries find that customer trust was significantly related to customers' identification with the company.

On the other side, several scholars proved that customer identification provides a favorable platform for customer trust (Camarero and Garrido, 2011; He *et al.*, 2012; Rather, 2018; So *et al.*, 2013). For instance, Rather (2018) in their study of brand identification among customers of four- and five-star hotels in India documented the significant influence of customers' identification with the hotel in customer trust in the hotel.

3.3.3.4 Customer Attitude

Customer attitude towards a company/brand represents the degree of customer' likeability of the company/brand, as well as the extent to which a customer has a favorable view of the company/brand (Augusto and Torres, 2018). Customer attitude towards a company/brand is captured through dimensions such as this company/brand is bad-good, unpleasant-pleasant, and unfavorable–favorable (Currás-Pérez *et al.*, 2009). Few studies highlighted the linkage between customer attitude toward the company/brand and customer's identification with that company/brand. Precisely, as indicated in Table 3.1 and Table 3.2 only three studies have been investigated the association between the two constructs (Augusto and Torres, 2018; Currás-Pérez 2009; Currás-Pérez *et al.*, 2009). Furthermore, these studies reported discrepancy findings in the direction of the relationship between the two constructs. On the one hand, Currás-Pérez (2009) and Currás-Pérez *et al.* (2009) argue that through the identification with the company/brand the individual experiences a state of emotional connection that will positively predispose him/her towards it. The two studies were demonstrated the significant influence of consumer-company/brand identification on customer attitude toward that company/brand. From the alternative perspective, Augusto and Torres (2018) in their study of brand identification among customers of retail banks in Portugal supported the prediction role of customer attitude toward the brand on the identification with that brand.

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Table 3.2 Summary of the Previous Key Studies in the Consequences of Consumer-Comp

Author/s (Year)	Sample	Consequence varia
Kim *et al.* (2001)	130 users of cellular phone brands in Korea.	– Brand loyalty (N – Word of mouth
Bhattacharya and Sen (2003)	-	– Company loyalt – Company prom – Customer recru – Resilience to ne – Stronger claim c
Lichtenstein *et al.* (2004)	1000 customers of a national food chain in the United States.	– Customer donat cooperate suppo – Perceptual corp summing in thre loyalty, emotion customer intere store (S).
Ahearne *et al.* (2005)	The model tested in a consultative selling context of pharmaceutical sales reps calling on physicians using 178 high-prescribing physicians.	– Customer extra- – Customer produ
Bagozzi and Dholakia (2006)	154 members of Harley-Davidson Motorcycle small group brand communities.	– Brand behavior frequency and a

Author/s (Year)	Sample	Consequence varia
Kuenzel and Halliday (2008)	241 users of two global car brands (i.e., Ford and Mercedes-Benz) in the UK.	– Word of mouth – Repurchase (S)
Carlson *et al.* (2009)	162 university students in the United States. Students were selected from sports marketing classes due to their interest in the focal basketball team.	– Games watched – Retail spending
Currás-Pérez (2009)	296 Spanish customers of Mapfre insurance company.	– Purchase intent – Company attitu – Commitment (S
Currás-Pérez *et al.* (2009)	299 Spanish consumers of toiletries and cosmetics products over the age of 18.	– Brand attitude (– Purchase intenti
Homburg *et al.* (2009)	597 customers from 109 travel agencies in Germany.	– Customer loyalt – Willingness to p
Keh and Xie (2009)	351 customers from three Chinese companies in different service industries.	– Purchase intenti – Price premium (– Customer comm
Marin *et al.* (2009)	400 customers from a regional bank in Spain.	– Customer loyalt
Casaló *et al.* (2010)	241 members of several free software virtual communities.	– Community pro – Consumer parti community (NS

Author/s (Year)	Sample	Consequence varia
		– Consumer satisf
Kuenzel and Halliday (2010)	1170 car owners in Germany	– Brand loyalty (S
Stokburger-Sauer (2010)	Sample of Diabetes patients using Brand X blood sugar meters.	– Customer loyalt – Customer advoc – Customer satisfa
Bodet and Bernache-Assollant (2011)	395 spectators of French ice hockey first division clubs.	– Customer loyalt
Camarero and Garrido (2011)	231 members of Spanish museums of fine arts.	– Members' satisf – Members' trust – Future commitm
He and Li (2011)	268 customers of mobile telecommunications services in Taiwan.	– Customer satisfa – Brand loyalty (i satisfaction) (S)
Nam *et al.* (2011)	378 hotel and restaurant customers in the United Kingdom.	– Customer satisfa – Brand Loyalty (
Stokburger-Sauer (2011)	421 Germans as potential visitors of the Republic of Ireland as a holiday destination.	– Brand visit inte – Brand advocacy
He *et al.* (2012)	199 British users of mobile phones using the Mall-intercept method of survey.	– Satisfaction (S) – Brand Trust (S) – Perceived value

Author/s (Year)	Sample	Consequence varia
	The questionnaire asked the participants to refer to the main brands of their current mobile phones when answering the questions onsite.	– Brand loyalty (i and perceived v
Lam *et al.* (2012)	5919 consumers of 10 brands in five product categories (i.e., beer, sportswear, cell phones, fast-food chains, and e-commerce sites) from 15 countries.	– Brand Identity– – Brand identity–
Stokburger-Sauer *et al.* (2012)	781 consumers of four product categories, that is athletic shoes, mobile phones, soft drinks, and grocery stores. This sample is a part of a panel of German household consumers.	– Brand loyalty (S – Brand advocacy
Zhou *et al.* (2012)	437 members of an online Chinese car club community.	– Commitment (S – Emotional Attac
Albert and Merunka (2013)	1,505 French consumers. The consumers were directed to fill the questionnaire about their favorite brand.	– Brand love (S) – Brand commitm
Becerra and Badrinarayanan (2013)	181 undergraduate students from a large Southwestern university in the US. The students have filled the questioner with regard to two brands of two different product categories (athletic shoes and cars).	– Purchase intenti – Positive brand r – Oppositional br

Author/s (Year)	Sample	Consequence varia
Boenigk and Helmig (2013)	*Sample 1:* 314 donors to a nonprofit organization working in the field of cancer prevention and therapy in Germany. *Sample 2:* 298 participants from a blood donation online community in Germany.	– Donor loyalty (S – Donations (NS)
Jones and Runyan (2013)	Study 1: 100 customers single-brand retailers in the United States. Study 2: 259 customers single-brand retailers in the United States.	– Consumers asso community (S) i
Martínez and Rodriguez del Bosque (2013)	382 fourth-year students were surveyed regarding national hotels they had spent the last year holidays in Spain.	– Customer loyalt – Customer satisfa
So *et al.* (2013)	207 Australian hotel customers who had traveled domestically or internationally in the past 12 months. The participants were asked to complete the survey with the hotel brand that they had most recently used.	– Service quality (– Perceived value – Brand trust (S) – Brand loyalty (N The findings also perceived value, a the relationship identification and

Author/s (Year)	Sample	Consequence varia
Tuškej *et al.* (2013)	596 consumers of different brands and different product categories completed the online survey about their favorite brands.	– Positive Word-c – Brand commitm
Chen *et al.* (2015)	252 undergraduate college students who had goods shopping experiences in Taiwan.	– Purchase intenti
Pérez and Rodríguez del Bosque (2015)	476 customers of commercial banks in Spain.	– Satisfaction (S) – Recommendatio – Repurchase beh
Elbedweihy *et al.* (2016)	293 British respondents, the respondents "were asked to complete the survey with respect to their favorite brand in two product categories: mobile phones and TVs".	– Brand loyalty (N – Consumer resili (S) in both prod
Wolter *et al.* (2016)	649 consumers of the top seven selling beer brands in the United States.	– Brand loyalty (S
Deng and Xu (2017)	349 Chinese consumers of two product categories.	– Purchase intenti – Recommend int – Consumer loyal
Kumar and Kaushik (2017)	342 foreign tourists visiting Dharamsala in India.	– Destination adv – Destination loya

Author/s (Year)	Sample	Consequence varia
Popp and Woratschek (2017a)	1797 participants from an online brand community whose members are interested in an alcoholic beverage.	– Consumer satisf – Brand loyalty (S – Positive word o
Popp and Woratschek (2017b)	1443 customers of 10 service/product brands completed the survey. These customers are part of a large representative German consumer panel.	– Customer satisfa – Price image (S) – Brand loyalty (S – Positive Word-o
Torres *et al.* (2017)	1173 undergraduate students "who were registered in the academic year 2014/2015 at the University of Coimbra regarding the Sagres brand, which is a market leader in the Portuguese beer market".	– Repurchase inte analytics refed t identification is condition for hig
Augusto and Torres (2018)	280 customers of retail banks in Portugal.	– Willingness to p
Rather (2018)	345 customers of four- and five-star hotels in India, who had stayed at t least once for a night or more.	– Customer comm – Customer satisfa – Customer trust – Brand loyalty (S The findings also sh commitment media customer brand ide

Author/s (Year)	Sample	Consequence varia
Tuškej and Podnar (2018)	249 consumers of "five product categories cars, cosmetics, mobile phones, fashion and food, and beverage. This sample is a part of one of the largest online panels of Slovenian consumers".	– Consumers' acti activities on soc
Berrozpe *et al.* (2019)	308 Ibizan tourists in Spain.	– Destination loya
Abid *et al.* (2020)	312 regular consumers of national brands of organic foods sold through mass retail in France.	– Brand commitm The results also r identification fully between the env dimensions of soc commitment.
Han *et al.* (2020)	297 South Korean customers who had experienced global chain restaurant brands (e.g., T.G.I. Friday's, Starbucks, Burger King, Pizza Hut, KFC, etc.).	– Brand loyalty (S
Kumar and Kaushik (2020)	321 participants, the participants were asked to consider one product and one service category: mobile (as product brand) and mobile services provider (as service brand) in India.	<u>*Consumer brand rela*</u> – Two-way comm – Emotional excha only
Silva *et al.* (2020)	356 participants, the participants were invited to respond to the questionnaire considering their preferred brand of perfume.	– Purchasing inter – Brand loyalty (S

Note: (S)= hypothesized relationships are empirically supported; (NS)= hypothesized relationships are not empi papers, hypothesized relationships are not empirically examined.

3.4 Conclusions

Given that university brand identification literature is an extension of the self-identification relationship literature in organizational behavior studies and marketing studies from the social identity perspective, the previous chapter provided an extended review of organizational identification literature, this chapter aims to provide a review of the key literature on consumer-company/brand identification. This chapter outlined in three main sections:

- Section one is an introductory section in which the concepts of consumer identity, corporate identity, and brand identity were discussed to facilitate the understanding of the company/brand identification topic.
- Section two presented a detailed discussion of the conceptualization of consumer-company/brand identification. In brief, the loosening of the group membership as a requirement for identification led to extend the identification concept to the context of customers' relationships with companies and brands. Bhattacharya and Sen (2003) described consumer-company identification as an active, selective, and volitional act motivated by the satisfaction of one or more of the key self-definitional needs (i.e. self-continuity, self-enhancement, and self-distinctiveness). Marketing scholars then extended the identification relationship to consumer-brand relationships and introduced the concept of consumer-brand identification (e.g., Kuenzel and Halliday, 2008; Stokburger-Sauer *et al.*, 2012). Stokburger-Sauer *et al.* (2012, p. 407) defined consumer identification with the brand as "a consumer's perceived state of oneness with a brand".
- Section three offered an overview of the main antecedents and consequences of consumer-company/brand identification. The review of the key studies of antecedents and consequences of consumer-company/brand identification revealed that perceived prestige, perceived distinctiveness, self-similarity, corporate social responsibility, perceived attractiveness, brand experience, and brand social benefits are the most common drivers of consumer-company/brand identification. While customer commitment, customer loyalty, repurchase intentions, and word-of-mouth communication are the consequences most evident in the literature. In addition to the aforementioned antecedents and consequences factors of consumer-company/brand identification, the

extensive review of consumer-company/brand identification literature revealed that there are inconsistent findings in the direction of the relationship between consumer-company/brand identification and set of factors including perceived quality, customer satisfaction, customer trust, and customer attitude.

The next chapter presents a review of the university brand identification literature and hypotheses development to be investigated in this study.

CHAPTER 4

UNIVERSITY BRAND IDENTIFICATION LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

- University Brand Identification Literature
- Conceptual Model and Hypotheses Development

UNIVERSITY BRAND IDENTIFICATION LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

This chapter is divided into two main parts. The first part presents a comprehensive review of the extant literature on university brand identification (i.e., the identification with the university brand) to achieve several goals. First, to provide an overview of the past research conducted on this research topic. Second, to facilitate an objective assessment of how university brand identification has been conceptualized and operationalized in the previous literature. Finally, to offer an expanded view of the previous antecedents and consequences of university brand identification that has been proposed in the previous studies, which in turn contributes to identifying and highlighting the limitations of the existing literature. Drawing on the limitations of the current literature on university brand identification the second part of this chapter presents the conceptual model and hypotheses development to be empirically tested in this research. Figure 4.1 shows the structure of the chapter.

Figure 4.1 Structure of Chapter Four

Chapter 4

- **4.1 University Brand Identification Literature**
  - 4.1.1 The Systematic Review Process
  - 4.1.2 The Random Search Process
  - 4.1.3 Description of Articles
  - 4.1.4. Conceptualization and Operationalization of University Brand Identification
  - 4.1.5 Antecedents and Consequences of University Brand Identification
  - 4.1.6 Limitations and Identification of Research Gaps in the Extant Literature
- **4.2 Conceptual Model and Hypotheses Development**
  - 4.2.1 University Brand Attractiveness
  - 4.2.2 University-Self Similarity
  - 4.2.3 University Prestige
  - 4.2.4 University Distinctiveness
  - 4.2.5 University Social Responsibility
  - 4.2.6 Student Satisfaction
  - 4.2.7 Student Trust
  - 4.2.8 Student Loyalty

4.1 University Brand Identification Literature

To cover a diverse range of publications as possible in reviewing the extant literature in the identification with the university, the searching process of the literature was conducted in two phases. The first phase is a systematic review, which was conducted at the end of July 2018. The second phase is a random search that was conducted at the end of February 2020. In organizing this part, firstly a brief discussion of the two search phases and then the descriptions of the articles resulting from the two search phases were provided. Attention then was directed to how university brand identification was conceptualized and operationalized in previous literature. Followed by presenting an expanded view of the previous antecedents and consequences of university brand identification that have been proposed and/or empirically tested in the previous studies. Finally, this part was ended by highlighting the limitations and identify research gaps in the extant literature of the identification with the university.

4.1.1 The Systematic Review Process

The systematic literature review approach was adopted to conduct the current review of university brand identification literature. Because one of the core advantages of the systematic literature review approach is following a search strategy that leads to conducting an extensive review of the existing research of a particular research area (Denyer and Tranfield, 2006; Tranfield *et al.*, 2003). Following the guidelines for conducting a good systematic review as suggested by theorists of this methodology (Henry *et al.*, 2018; Tranfield *et al.*, 2003). Firstly, a set of search terms were listed includes: "university brand identification", "identification in higher education", "university identification", "student-university identification", "alumni-university identification", "graduate-university identification", and "the identification with the university". Second, the search process was conducted in the eight major databases: Science Direct, ISI Web of Science, EBSCO Business Source Complete, Emerald, JSTOR, SAGE Publishing, Wiley Online Library, and Taylor & Francis Online. The document type was specified as journal articles written in the English language. The search process in databases was limited to be included within the title, abstract, and keywords for a journal article to be considered, in case of such option not available, the search process was limited to abstract only as in the case of Emerald and EBSCO databases. The database search was conducted at the end of July 2018, and therefore included all articles that had been accumulated in the databases at that point of time.

The results of the initial search process revealed 671 articles. After that, several filtering processes were applied. Initially, after removing duplicates between and within databases, the database search resulted in 414 different articles. For instance, if a paper was indexed more than one time in the same database or more than one database, only one version was included in the review. Then, the titles, abstracts, and keywords of the 414 articles were carefully reviewed. The main focus of the review in this stage was on the articles that dealt with the identification with the university in the context of students/alumni relationship with the university. Thus, the articles that addressed the identification with the university from the university's employee perspective were excluded because it related more with the research on organizational behaviors and human resources management. Also, the articles that focused on students' identification with the university's sports teams, corporate brands, and educational programs were excluded. This stage resulted in the exclusion of 364 articles.

Therefore, the remaining 50 articles have eligibility to enter the full-text assessment stage. Consequently, the full-text review for the remaining 50 articles was conducted carefully and resulting in the exclusion of 22 more articles, which not focused on the identification with the university in the higher education context. Accordingly, only 28 articles have the eligibility to go through the next phases of the review. Additionally, a random search was conducted on the google scholar website, which revealed three articles related to the research topic available in other databases (i.e., Bass *et al.*, 2013; Polyorat, 2011; Porter *et al.*, 2011), which were incorporated with the 28 articles that revealed from the systematic search process in the databases.

4.1.2 The Random Search Process

Given the time gap since the systemic review was conducted and to make the current review of university brand identification literature up-to-date, a random search was conducted in the same databases sources that used in the first phase at the end of February 2020, to consider any new knowledge emerged in the research topic. In this phase, the time frame for the search process was set to be from August 2018 to the date of searching. This phase revealed a new seven articles related to the research topic. Thus, these articles were combined with the 31 studies that resulting from the first search phase. Accordingly, in a total 38 articles have the eligibility to go through the next steps of the review to achieve the main goals from conducting the current literature review.

4.1.3 Description of Articles

This stage aims to provide a general description of the key information of each retained article. The key information always includes the author/authors' name, year of the study, study design, population, and sample/number of structures assessed (Henry *et al.*, 2018). Table 4.1 present a summary of the key information for university brand identification articles resulting from the two search processes.

As Table 4.1 shows, 34.2% (13 studies) of the retained articles appearing in specialized journals in higher education marketing and management like Studies in Higher Education, Journal of Marketing for Higher Education, Journal of Higher Education Policy and Management, and International Journal of Educational Management. Interestingly, the majority of the remaining articles appearing in other marketing journals or covering marketing issues such as the Journal of Business Research, Journal of Marketing Management, and Journal of Services Marketing. Furthermore, Table 4.1 shows that the largest share of the studies was empirical quantitative papers, only one empirical quantitative longitudinal paper (i.e., Wakefield *et al.*, 2018), and there were only four papers empirical mixed methods (i.e., Balmer *et al.*, 2020; Schlesinger *et al.*, 2015; Tong, 2014; Wilkins and Huisman, 2013). Surprisingly, there has been only one qualitative paper (i.e., Balmer and Liao, 2007) and only two conceptual papers (i.e., Bass *et al.*, 2013; Dollinger *et al.*, 2018) among the studies included in the current review.

Additionally, as illustrated in Table 4.1 the largest share of the studies conducted in the context of the identification with the university from the students' perspective, and nine studies were conducted from alumni's (graduates) perspective. Also as presented in Table 4.1 two studies followed a somewhat different approach (i.e., Chen, 2019; Wilkins and Huisman, 2013). Precisely, Wilkins and Huisman (2013) studied the identification with the university among high school students as prospective university students.

Whereas Chen (2019) studied the identification with the university with data come from both students and alumni.

Regarding the chronological distribution of the studies, although Ashforth and Mael (1989) highlighted the relevance of Social Identity Theory to organizational settings in 1989, the first article in the identification with the university from students/alumni perspective appeared in 1992 for the same authors Mael and Ashforth. This finding consistent with the findings of Rikketa's (2005) study of organizational identification a meta-analysis as he found that among 96 papers included in the study only one paper addressed the identification in the higher education context, which was by Mael and Ashforth (1992). The next seventeen years (1993-2009) saw the publication of only one paper and the interest was directed to university brand identification research since 2010 (see Figure 4.2).

Figure 4.2 Chronological Distribution of University Brand Identification Studies

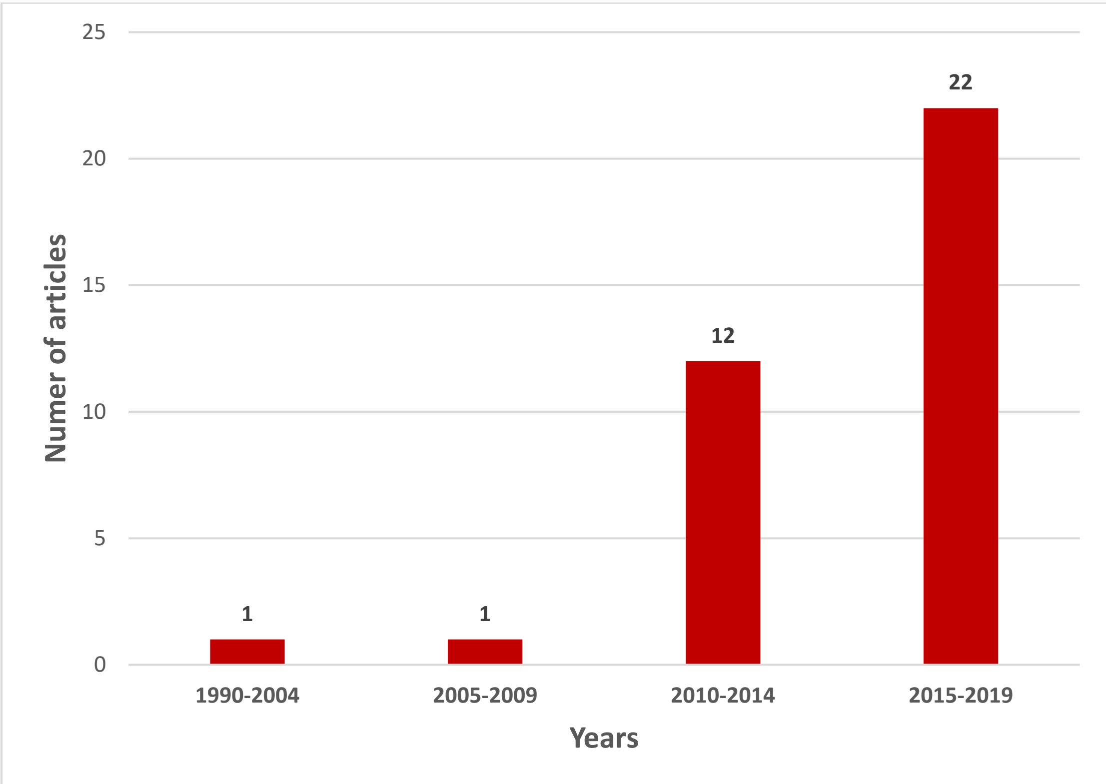


Table 4.1 Summary of University Brand Identification Articles

Author (Year)	Article Type	Research Design	Research Sample (Level of Analysis)	J
Mael and Ashforth (1992)	Empirical	Online survey	297 alumni of a religious education college in the northeastern United States.	J
Tom and Elmer (1994)	Empirical	Online survey	235 alumni of a school of Business Administration in the USA.	J
Balmer and Liao (2007)	Empirical	Qualitative (focus group discussions)	Students at established UK university sited in an English Cathedral city and it's a collaborative partner institution operating in Asia	C I
Kim *et al.* (2010)	Empirical	Survey ("the surveys were administered using a paper-and-pencil survey during selected classes").	306 students of three large private universities in Korea.	J
Bliuc *et al.* (2011)	Empirical	Survey	183 psychology students in their third year undertaking a Health Psychology unit at a large metropolitan university in Romania.	E
Polyorat (2011)	Empirical	Survey (the surveys were administered in classrooms).	357 undergraduate students attending a major Northeastern university in Thailand.	A

Author (Year)	Article Type	Research Design	Research Sample (Level of Analysis)	J
Porter *et al.* (2011)	Empirical	Online survey	114 alumni from 74 different colleges in the United States.	R Jo
Bass *et al.* (2013)	Conceptual	-	The authors suggest testing the conceptual model with current university students.	Jo
Jiménez-Castillo *et al.* (2013)	Empirical	Survey ("using a computer-assisted telephone interviewing system").	500 alumni of "a public research-intensive university located in the south of Spain who obtained the degree from this university 2 or 3 years before the research fieldwork was carried out".	In N
Wilkins and Huisman (2013)	Empirical	Mixed methods (23 students were interviewed and completed a draft questionnaire and hard copy questionnaires).	384 high school students studying at nine international schools in the United Arab Emirates (as prospective university students).	Jo a
Arslan and Akkas (2014)	Empirical	Survey (participation was voluntary and took place during the classes).	1,260 students of a public university (Duzce University) in northwestern Turkey.	S
Di Battista *et al.* (2014)	Empirical	Survey (Participation was voluntary and took place during the usual class time of a psychology course).	280 undergraduate students from an Italian university.	S

Author (Year)	Article Type	Research Design	Research Sample (Level of Analysis)	J
Stephenson and Yerger (2014a)	Empirical	Online survey	2,763 alumni "of a mid-sized state-run university in the mid-Atlantic region of the United States".	I N
Stephenson and Yerger (2014b)	Empirical	Online survey	2,763 alumni "of a mid-sized state-run university in the mid-Atlantic region of the United States".	I E
Tong (2014)	Empirical	Mixed methods (focus Groups and hard copy questionnaires were distributed to a convenience sample of students via their classes).	255 undergraduate students from a large university in the southeast of the United States.	F R
Cho and Yu (2015)	Empirical	Online survey	131 international students from a large public university located in the Southeastern region of the United States.	J E
Schlesinger *et al.* (2015)	Empirical	Mixed methods (focus groups and surveys using a computer-assisted telephone interviewing system).	500 students from a Spanish public university that, at the time of data collection, had completed their university studies within the last three years.	J
Stephenson and Yerger (2015)	Empirical	Online survey	2,763 alumni of a mid-sized state-run university in the mid-Atlantic region of the United States.	S

Author (Year)	Article Type	Research Design	Research Sample (Level of Analysis)	J
Balaji *et al.* (2016)	Empirical	Survey (the surveys were administered in classrooms).	461 students "of which 298 are from a leading private university and 163 are from two public universities in Malaysia".	J
Myers *et al.* (2016)	Empirical	Online survey	555 juniors and seniors' undergraduate students from a large public university in the western United States.	C
Nevzat *et al.* (2016)	Empirical	Online survey posted on the university's official Facebook page.	225 postgraduate and undergraduate students of a university located in North Cyprus.	C
Palmer *et al.* (2016)	Empirical	Online survey	791 alumni members who had previously studied at a large, well established UK university.	J
Stephenson and Yerger (2016)	Empirical	Online survey	268 first-year students at a public university in the mid-Atlantic region of the United States.	J
Wear *et al.* (2016)	Empirical	Online survey	190 students from the athletic department at Midwestern university.	S
Wilkins *et al.* (2016)	Empirical	Survey (the surveys were administered in classrooms).	437 students enrolled in an undergraduate or a postgraduate program in business or management at two business schools (325 were studying at an international branch	S

Author (Year)	Article Type	Research Design	Research Sample (Level of Analysis)	J
			campus in the United Arab Emirates and 112 were at a home country campus in the UK).	
Sánchez-Fernández *et al.* (2017)	Empirical	Survey (using a (computer-assisted telephone interviewing system).	500 alumni of a medium-sized public university located in the south of Spain	I R
Dollinger *et al.* (2018)	Conceptual	-	The conceptual framework was developed from the students' perspective.	J E
Eldegwy *et al.* (2018)	Empirical	Survey	401 undergraduate students "enrolled in private universities in Egypt".	I E
Heffernan *et al.* (2018)	Empirical	Survey	Students undertaking British degrees at two transnational partnership universities (Hong Kong, n=203 and Sri Lanka, n=325).	I E
Pinna *et al.* (2018)	Empirical	Survey (the surveys were administered in classrooms).	333 students from an Italian University	T
Trullas *et al.* (2018)	Empirical	Survey (the surveys were administered in classrooms).	359 students "from various technical faculties at a public university in Catalonia, Spain".	J E

Author (Year)	Article Type	Research Design	Research Sample (Level of Analysis)	J
Wakefield *et al.* (2018)	Empirical	Longitudinal	216 Spanish undergraduates at the University of Valencia with seven months between T1 and T2.	A W
Chen (2019)	Empirical	Online survey	468 students and graduates of Taiwan universities.	S M
El-Kassar *et al.* (2019)	Empirical	Online survey	619 students from two private universities (429 students from the Lebanese American University and 190 students from the University of EAFIT in Colombia).	I E
Fazli-Salehi *et al.* (2019)	Empirical	Survey	400 students from nine public universities in Tehran.	A a
Rodríguez *et al.* (2019)	Empirical	Online survey	395 questionnaires of 75% from professors and 25% from graduates at the Rey Juan Carlos University.	E M E
Yao *et al.* (2019)	Empirical	Online survey	1299 students of four public universities in a Midwestern state in the USA.	J E
Balmer *et al.* (2020)	Empirical	Mixed methods (focus group discussions and surveys "were distributed randomly to international postgraduate business school students in London").	255 international postgraduate business students in London.	J

4.1.4 Conceptualization and Operationalization of University Brand Identification

This section presents an extended view on how university brand identification (i.e., students'/alumni's identification with the university) was conceptualized and operationalized in each of the studies resulting from the two search processes. Table 4.2 summarises the previous conceptualizations and operationalizations of university brand identification.

4.1.4.1 Conceptualization of University Brand Identification

This section presents two issues in the conceptualization of university brand identification as addressed in the prior literature: the terminology that the author/authors used to express the process of students/alumni identifying with the university and the definition proposed or adapted.

Firstly regarding the terminology used, as Table 4.2 shows there is no agreement on the terminology used to express the process of identifying with the university as it addressed in the literature under various synonyms such as the identification with the university (Rodríguez *et al.*, 2019), university identification (Bass *et al.*, 2013; Cho and Yu, 2015; Di Battista *et al.*, 2014; Tong, 2014; Wear *et al.* 2016), college identification (Porter *et al.*, 2011), brand identification (Eldegwy *et al.*, 2018; Palmer *et al.,* 2016; Polyorat, 2011; Stephenson and Yerger, 2014a, 2014b, 2015) and university brand identification (Balaji *et al.*, 2016; Balmer *et al.*, 2020; Chen, 2019; Stephenson and Yerger 2016; Pinna *et al.*, 2018). Furthermore, several scholars used contextual terminologies, for instance, those who studied the identification with the university from the students' perspective used terms such as students' identification with the university (Balmer and Liao 2007; Kim *et al.*, 2010; Myers *et al.*, 2016; Trullas *et al.*, 2018), student–university identification (Dollinger *et al.*, 2018; Heffernan *et al.*, 2018; El-Kassar *et al.*, 2019; Wilkins and Huisman 2013), identification with the university by the students (Arslan and Akkas, 2014), students' identification with the university brand (Fazli-Salehi *et al.*, 2019; Nevzat *et al.*, 2016; Yao *et al.*, 2019). On the other side, several researchers who studied the identification with the university form alumni's perspective used terminologies like alumni identification with the university (Tom and Elmer, 1994), the identification of alumni with their alma mater (Mael and Ashforth, 1992), graduate identification with the university (Jiménez-Castillo *et al.*, 2013), graduate–university identification (Schlesinger *et al.*, 2015), and alumni–university identification (Sánchez-Fernández *et al.*, 2017).

Second, regarding the conceptualization of university identification, previous conceptualizations of university brand identification can be summarized into four main perspectives:

- Conceptualizing university brand identification as an organizational identification construct. The first perspective is the studies that relied on the pioneering studies in organizational identification literature (e.g., Ashforth and Mael 1989; Dutton *et al.*, 1994; Mael and Ashforth, 1992) and conceptualized the identification with the university as a form of organizational identification (Balaji *et al.,* 2016; Bass *et al.*, 2013; Cho and Yu, 2015; Kim *et al.*, 2010; Mael and Ashforth, 1992; Myers *et al.*, 2016; Nevzat *et al.*, 2016; Porter *et al.,* 2011; Tom and Elmer, 1994; Tong, 2014; Wear *et al.*, 2016; Wilkins *et al.*, 2016). Some of these studies drew on Ashforth and Mael (1989) and subsequently Mael and Ashforth (1992) original definition of organizational identification and didn't offer an explicit definition of the identification with the university (e.g., Kim *et al.*, 2010; Myers *et al.*, 2016; Tom and Elmer, 1994), whereas others adapted the conceptualization of organizational identification to be compatible with the university setting (e.g., Balaji *et al.,* 2016; Bass *et al.*, 2013; Tong, 2014).
- Conceptualizing university brand identification using the concept of consumer-company/brand identification. The second perspective is the studies that relied on the pioneering works in expanding the concept of identification to consumer-company/brand relationships (e.g., Ahearne *et al.*, 2005; Bagozzi and Dholakia, 2006; Bhattacharya and Sen, 2003) and conceptualized the identification with the university as a form of consumer identification with a company/brand (Dollinger *et al.* 2018; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018; Polyorat 2011; Schlesinger *et al.*, 2015; Stephenson and Yerger, 2015; Trullas *et al.*, 2018; Wilkins and Huisman, 2013). Similar to the previous perspective, several authors drew upon the original definition of consumer identification with the company/brand and did not offer an explicit definition of the identification with the university (e.g., Heffernan *et al.*, 2018; Polyorat, 201; Trullas *et al.*, 2018), whereas others adapting the conceptualization

of consumer's identification to be consistent with the university context (e.g., Schlesinger *et al.*, 2015).

- Conceptualizing university brand identification using organizational behavior and marketing literature, which constitutes the largest segment of the previous studies in the identification with the university. The third perspective is those studies that relied on self-identification relationship literature on both organizational behavior studies and marketing studies in studying the identification with the university (Arslan and Akkas, 2014; Balmer and Liao, 2007; Balmer *et al.*, 2020; Chen, 2019; Eldegwy *et al.*, 2018; El-Kassar *et al.*, 2019; Jiménez-Castillo *et al.*, 2013; Palmer *et al.*, 2016; Pinna *et al.*, 2018; Rodríguez *et al.*, 2019; Sánchez-Fernández *et al.*, 2017; Stephenson and Yerger 2014a, 2014 b, 2016; Yao *et al.*, 2019).
- Conceptualizing university brand identification as a form of group/social identification. The fourth perspective is those studies that conceptualized the identification with the university as a form of group/social identification, which is represented in the studies of Bliuc *et al.* (2011), Di Battista *et al.* (2014), and Wakefield *et al.* (2018).

The ongoing debate about the student's role in the university setting (as a customer, as an employee, as a co-producer) (e.g., Bunce *et al.*, 2017; Halbesleben, 2009) is the main reason for the variation in the conceptualizations of university brand identification. As the researchers who view the student as an organizational member conceptualized university brand identification as a form of organizational identification (Balaji *et al.,* 2016; Kim *et al.*, 2010; Mael and Ashforth, 1992 Wilkins *et al.*, 2016), whereas for those who see the student as a customer conceptualized university brand identification as a form of customer identification (e.g., Dollinger *et al.,* 2018; Fazli-Salehi *et al.*, 2019; Trullas *et al.*, 2018; Wilkins and Huisman, 2013). Indeed, there is no contradiction between these studies, as the theoretical framework for all of these studies draws on Social Identity Theory and its application in the organizational setting (Ashforth and Mael, 1989; Mael and Ashforth, 1992). Furthermore, most of the studies that conceptualized university brand identification as a form of customer identification captured it using Mael and Ashforth's scale (1992) who conceptualized the identification with the university as a form of organizational identification.

The previous fourth perspective in which university brand identification was conceptualized as a form of group/social identification is the one that followed a different approach in conceptualizing university identification, which represented in the studies of Di Battista *et al.* (2014), Bliuc *et al.* (2011) and Wakefield *et al.* (2018) as these studies focused on the identification with the university group rather than the identification with the university identity. Although some have argued that organizational identification is a special type of social identification (Ashforth and Mael, 1989; Bhattacharya *et al.*, 1995; Mael and Ashforth, 1992). Wilkins *et al.* (2016) argue that organizational identification and social identification are quite distinct and operate independently. For instance, some students might feel a connection with their university if they perceive that the university's identity reflects or enhancing their own social identity, although they might not feel the connection with the university group and they didn't develop meaningful social relationships (Wilkins *et al.*, 2016).

To be more inclusive, this study follows the third perspective in which the researchers drew on self-identification relationship literature in both organizational behavior studies and marketing studies as the university setting has a special nature in which the student has a dual role (as an organizational member and as a customer).

To conclude, considering that the diversity in the terminologies used to express the process of identifying with a university is just variation in the terms that used to express the process of the identification, to maintain flow for the reader the concepts of university identification and university brand identification are used interchangeably throughout the thesis to express the process of students/alumni identification with the university. There are two main reasons for why the current research adopting the concept of university brand identification: first universities are frequently conceptualized and managed as corporates brands (Balmer *et al.*, 2020; Palmer *et al.,* 2016), second to be consistent with the latest literature as it uses more the concept of university brand identification rather than the other terminologies (e.g., Balaji *et al.*, 2016; Balmer *et al.*, 2020; Chen, 2019; Eldegwy *et al.*, 2018; Fazli-Salehi *et al.*, 2019; Palmer *et al.,* 2016; Pinna *et al.*, 2018; Yao *et al.*, 2019).

Contrary to the debate emerged in the dimensionality of the identification concept in both organizational behavior studies (e.g., Ashforth and Mael, 1992; Edwards, 2005; Edwards and Peccei, 2007; Van Dick, 2001; Van Dick *et al.*, 2004; Van Dick *et al.*, 2006) and marketing studies (e.g., Bhattacharya and Sen, 2003; Homburg *et al.*, 2009; Lam *et al.*, 2010, Lam *et al.*, 2013) as discussed in the previous two chapters, there is no debate arises on the dimensionality of university brand identification among the previous studies as all have defined university brand identification as a unidimensional construct or adopted unidimensional definitions of organizational identification or customer identification in defining university identification.

Consistent with the previous definitions, the current study defines university brand identification as students'/alumni's defining of the self in terms of an association with a university to fulfill one or more of the key self-definitional needs (i.e., self-continuity, self-distinctiveness, self-esteem). University brand identification occurs when "students perceive that the university's salient and unique characteristics are self-defining and enhance his/her self-identity" (Balaji *et al.*, 2016). Thus, identification is a process of self-definition that occurs following the cognitive link between a university's identity and the students'/alumni's identity. Hence, the more the students/alumni perceive a university's identity to be attractive, the stronger will be their identification with that university.

4.1.4.2 Operationalization of University Brand Identification

This section offers a detailed discussion on how university brand identification was measured in the prior literature. As Table 4.2 shows, Mael and Ashforth's scale (1992) is the most common scale to capture university brand identification in the previous studies. More specifically, after excluding Balmer and Liao's (2007) qualitative study and the two conceptual papers of Bass *et al.* (2013) and Dollinger *et al.* (2018) almost two-thirds of the remaining studies have adopted and used Mael and Ashforth's scale (1992) in capturing the identification with the university. Indeed, while other researchers employed other scales used in measuring organizational identification, for instance, Cho and Yu (2015) adapted Cheney's measure (1983) of organizational identification, also Yao *et al.* (2019) captured students' identification with the university brand using Bergami and Bagozzi's scale (2000) of organizational identification, other studies have adapted scales used in measuring consumer identification in marketing literature. For instance, Balaji *et al*. (2016) and Pinna *et al*. (2018) adapted Jones and Kim's (2011) scale of self-brand identification to measure university brand identification. Interestingly, as shown in Table 4.2, other researchers designed their own's measures to assess university brand identification (i.e., Chen, 2019; Di Battista *et al*., 2014; Tom and Elmer, 1994). Despite this variation in the scales employed to measure university brand identification in previous studies, all were shared in measuring university brand identification as a unidimensional construct.

**Table 4.2 Summary of the Conceptualization and Operationalization of University Brand
Literature**

Author/s (Year)	Terminology	Conceptualization	Operationa
Conceptualizing university brand identification as an organizational identification c			
Mael and Ashforth (1992)	The identification of alumni with their alma mater	This is the first study in extending the identification concept to a university setting and based on their previous work on organizational identification (i.e., Ashforth and Mael, 1989), they addressed the identification with the university as a form of organizational identification and defined it as "the perception of oneness with or belongingness to an organization where the individual defines him or herself at least partly in terms of their organizational membership" (p. 109).	The author their prev identificatio identificatio "1- Wher unive insult 2- I am ve abou 3- When I say 'v 4- This succe 5- When s feels 6- If a st unive
Tom and Elmer (1994)	Alumni identification with the university	The study conceptualized alumni identification with the university as a form of organizational identification and drew on Mael and Ashforth's (1992) definition of organizational identification.	The author to measure university, suggested variable to r

Author/s (Year)	Terminology	Conceptualization	Operationa
			the univers insignia goo
Kim *et al.* (2010)	Students' identification with the university	The author conceptualized students' identification with the university as a form of organizational identification and drew on Mael and Ashforth's (1992) definition of organizational identification.	The study with the uni scale (1992).
Porter *et al.* (2011)	College identification	Drawing on Ashforth and Mael's (1989) work in organizational identification, the authors defined college identification as "an individual's perceived sense of oneness with the university and involve the alumni defining themselves in terms of the university" (p. 3).	College ide Mael and A
Bass *et al.* (2013)	University identification	Building from Mael and Ashforth's (1992) definition of organizational identification, the authors defined university identification as "the bond, association, and sense of belongingness one feels toward a university or college attended" (p. 4).	
Tong (2014)	University identification	Drawing on Mael and Ashforth's (1992) definition of organizational identification the author defined university identification as "a perceived oneness with a university" (p. 161).	University i five items Ashforth's s "1- The succe

Author/s (Year)	Terminology	Conceptualization	Operationa
			2- When s feels 3- I am ve abou 4- I feel unive stude 5- When s feels
Cho and Yu (2015)	University identification	The study addressed university identification as a form of organizational identification and drew on Ashforth and Mael's (1989) definition of organizational identification.	The study Cheney's (identificatio "1- I feel I stude name 2- I find t [univ 3- I find it name 4- I view my p
Balaji *et al.* (2016)	University brand identification	Building from Ashforth and Mael's (1989) definition of organizational identification the authors defined university brand identification as "a student's perceived sense of belongingness or oneness with the university following their direct interaction" (p. 3024).	University by adapting self-brand i items: - "1- This [u 2- I find it

Author/s (Year)	Terminology	Conceptualization	Operationa
			3- This [perso becor
Myers *et al.* (2016)	Students' organizational identification with their university.	The authors conceptualized students' identification with the university as a form of organizational identification and drew on Mael and Ashforth's (1992) definition of organizational identification.	Students' o their univer Ashforth's s
Nevzat *et al.* (2016)	Students' identification with the university brand	The authors conceptualized students' identification with the university as a form of organizational identification and drew on Mael and Ashforth's (1992) definition of organizational identification.	Students' ic brand was adapted fr (1992): - "1- Whe unive comp 2- When s feels 3- I am ve abou
Wear *et al.* (2016)	University identification	The study addressed university identification as a form of organizational identification and drew on Ashforth and Mael's (1989) study of organizational identification. The authors referred that identification is a sense of belonging to social groups and the membership and identification with these groups allows individuals to assimilate with like	The study r using four i Ashforth's s "1- I am ve abou 2- When usual 3- [Unive succe

Author/s (Year)	Terminology	Conceptualization	Operationa
		individuals and differentiate themselves from those not sharing similar characteristics.	4- When name comp
Wilkins *et al.* (2016)	Organizational identification	Drawing on O'Reilley and Chatman (1986) the authors defined organizational identification as "the psychological attachment of an individual to an organization" (p. 2236).	The auth identificatio from Abra organization "1- I feel s 2- I feel unive 3- I feel a s unive 4- I am unive
Conceptualizing university brand identification using the concept of consumer-company/bra			
Polyorat (2011)	Brand identification	Draw on previous literature in consumer identification (e.g., Bhattacharya *et al.*, 1995; Curras-Perez *et al.*, 2009; Kuenzel and Halliday, 2009) the author addressed university identification as a form of brand identification and mentioned that it occurs when consumers believe that they belong to a particular brand and use the brand for self-referencing or self-defining.	Brand iden items scale which was Ashforth's s
Wilkins and Huisman (2013)	Student–university identification	The authors drew on Bhattacharya and Sen's study (2003) and addressed student–university identification as a form of	The autho student–uni adapted fro

Author/s (Year)	Terminology	Conceptualization	Operationa
		consumer–organization identification which can occur in the absence of formal membership and even without any previous (or very minimal) interaction between the individual and the organization. Accordingly, the study investigated student–university identification among prospective university students (high school students).	and Bagozz Mael and mention the
Schlesinger *et al.* (2015)	Graduate–university identification	Building from Bhattacharya and Sen's (2003) definition of consumer-company identification the authors conceptualized graduate–university identification as "the degree to which the alumni perceive themselves and the university as sharing the same defining attributes and values, in an attempt to satisfy one or more personal needs" (p. 478).	The author identificatio (1992).
Stephenson and Yerger (2015)	Brand identification	Drawing on the works of Bhattacharya *et al.* (1995) and Kuenzel and Halliday (2008) the authors defined identification as "the perception of oneness with the organization such that the individual psychologically perceives their fate and the fate of the entity as intertwined (p. 301).	Identificatio measured u (1992).

Author/s (Year)	Terminology	Conceptualization	Operationa
Dollinger *et al.* (2018)	Student-university identification	Building from the studies of Bhattacharya and Sen (2003) and Schlesinger *et al.* (2015) the authors argue that student-university identification is a form of consumer-to-company identification which refers to “how the organizational members relate to the organization and its values or mission and If the identification is strong, students will see the institution’s successes and failures as their own” (p. 223).	
Heffernan *et al.* (2018)	Student-university identification	The authors drew on Bhattacharya and Sen (2003) and addressed student-university identification as a form of consumer-organization identification.	Student-uni measured u adapted fro organizatio included “ university” is a part of r
Trullas *et al.* (2018)	Student identification with the university	The authors drew on Bhattacharya and Sen (2003) and addressed student-university identification as a form of consumer-organization identification.	Student ider measured u various prev “1- I feel a 2- I consi peopl unive 3- Other proba

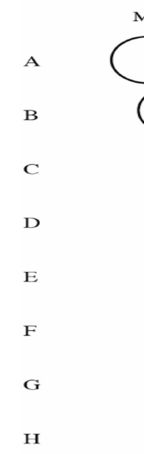
Author/s (Year)	Terminology	Conceptualization	Operationa
			4- The pe are p 5- This un 6- Being a gives 7- Being expre
Fazli-Salehi *et al.* (2019)	Students' identification with the university brand	The authors addressed students' identification with the university brand as a form of consumer-brand identification and drew on Bagozzi and Dholakia's (2006) definition of consumers' brand identification which defined as "the extent to which the consumer sees his or her own self-image as overlapping the brand's image" (p. 3).	Students' id brand was Ashforth's s
Conceptualizing university brand identification using organizational behavior and marke			
Balmer and Liao (2007)	Student identification with a university/business school	The authors drew on previous self-identification relationship literature in organizational behavior studies (Dutton *et al.*, 1994) and marketing literature (Bhattacharya and Sen, 2003) and argue that students' identification with a university is a form of the identification with corporate brands, in which the university brand become a mean of defining the self even well beyond graduation.	Qualitative

Author/s (Year)	Terminology	Conceptualization	Operationa
Jiménez-Castillo *et al.* (2013)	Graduate identification with the institution	From the works of Dutton *et al.* (1994) and Bhattacharya and Sen (2003), the authors defined graduate–university identification as "the degree to which graduates perceive themselves and the university as sharing the same defining attributes and values, in an attempt to satisfy one or more personal definition needs" (p. 239).	The study identificatio (1992).
Arslan and Akkas (2014)	Identification with the university by the students	The study described university identification as "a process of internalizing the institution and its ethos and feeling a part of the community" (p. 872).	Identificatio measured u (1992).
Stephenson and Yerger (2014a)	Brand identification	Drawing on previous literature on organizational identification and customer identification (Ashforth and Mael, 1989; Kuenzel and Halliday, 2008; Mael and Ashforth, 1992) the authors defined identification as "the defining of the self in terms of an association with an organization or brand" (p. 244).	The study identificatio (1992).
Stephenson and Yerger (2014b)	Brand identification	The study conceptualized university brand identification as a form of organizational identification and defined it as "the degree to which an individual defines the self by association with an organization and that membership in that	University b using Mael

Author/s (Year)	Terminology	Conceptualization	Operationa
		organization further shapes the self-concept" (p. 766).	
Palmer *et al.* (2016)	Brand identification	Drawing on Balmer and Liao's study (2007) the authors conceptualized brand identification as "students'/alumni's defining of the self in terms of an association with the brand of their university" (p. 3034).	Brand iden five-item s Ashforth's s "1- When perso 2- I am ve abou 3- When I rathe 4- When s perso 5- If publ woul
Stephenson and Yerger (2016)	University brand identification	Drawing on previous literature in organizational identification and customer identification (Ashforth and Mael, 1989; Bhattacharya *et al.*, 1995; Dutton *et al.*, 1994; Stoksburger-Sauer *et al.*, 2012) the authors defined identification as "the perception of oneness or belongingness to a group, entity, or brand" (p. 5).	University b using the (1992).
Sánchez-Fernández *et al.* (2017)	Alumni–university identification	From the studies by Bhattacharya and Sen (2003) and Dutton *et al.* (1994) the authors' defined alumni–university identification as "the degree to which alumni perceive	The scale p (1992) was university i

Author/s (Year)	Terminology	Conceptualization	Operationa
		themselves and the university as sharing the same defining attributes and values in an effort to satisfy one or more needs for personal definition" (p. 674).	
Eldegwy *et al.* (2018)	Brand identification	The authors drew on Palmer *et al.*'s (2016) definition of university brand identification.	Brand iden four-item s (2016) whic Mael and A
Pinna *et al.* (2018)	University brand identification	From the works of Dutton *et al.* (1994) and Bhattacharya and Sen (2003), the authors defined university brand identification as "the degree to which students perceive themselves and the university as sharing the same defining attributes and values, in an attempt to satisfy one or more personal definition needs" (p. 461).	University b by adaptin items scale same items
Chen (2019)	University brand identification	University brand identification is conceptualized as "the correlation between university students' perceptions of university brands and their self-concepts and the degree of sentiment or feeling that is established between universities and students" (p. 5).	The study d university content of t the study.
El-Kassar *et al.* (2019)	Student–university identification	The author drew on previous literature in organizational identification and consumer identification (Ashforth *et al.*, 2008; Bhattacharya and Sen, 2003; Pérez and Rodríguez Del Bosque, 2015) but they	Student–un measured u (1992).

Author/s (Year)	Terminology	Conceptualization	Operationa
		didn't refer to an explicit definition of student–university identification.	
Rodríguez *et al.* (2019)	The identification with the university	The authors referred that the identification with the university is produced when the related stakeholders perceive and feel that the distinctive and differentiating features of the university are self-defined and correspond to their own, generating behavioral intentions.	The identif captured us Mael and A "1- When unive 2- I consid my su 3- I feel th
Yao *et al.* (2019)	Students' university internal brand identification	Students' university internal brand identification was defined as "students' cognitive awareness of their membership in the university and their similarities to others in the university" (p. 215).	Drawing o scale of c authors ac students' identificatio In the first it rate on a sca overlapped universities In the se respondents represent th and their un eight pairs c

Author/s (Year)	Terminology	Conceptualization	Operationa
			
Balmer *et al.* (2020)	Students' identification with a newly established business school's brand	The study addressed students' identification with business schools brand as a form of corporate brand identification and referred to it as "a psychological state of perceiving, feeling, and valuing a sense of oneness with a corporate brand, as such, a consumer's perceived self-image will be in alignment with the corporate brand image and a pre-requisite of corporate brand identification is the fulfillment of at least one self-definitional need, such as self-continuity, self-distinctiveness, or self-esteem" (p. 2).	The author items scale (2016) and measure stu established which was Ashforth's s "1- The b are m 2- I am inte the B 3- When Schoo 4- When Schoo

Author/s (Year)	Terminology	Conceptualization	Operationa
Conceptualizing university brand identification as a form of group/social identific			
Bliuc *et al.* (2011)	Students' social identification with the university.	The study described students' social identification with the university as "belongingness to a university community" (p. 563)	The authors of social id social identi "1- I am pl 2- I feel stude 3- I ide stude 4- I feel comm
Di Battista *et al.* (2014)	University identification	The authors conceptualized university identification as a form of social identification, which was defined as "the degree to which people merge their sense of self within the group, think of themselves and the group in similar terms, and define themselves in terms of group membership" (p. 473).	The study university id "1- I am unive 2- I feel th for m 3- I feel unive 4- When so unive insult 5- Often, I of my 6- I feel unive 7- I like it typica

Author/s (Year)	Terminology	Conceptualization	Operationa
			8- I enjoy excell who envir 9- I don't i 10- I feel majo 11- I feel teach 12- I inte futur 13- I w recog
Wakefield *et al.* (2018)	University identification	University identification is addressed as a form of group identification, which is defined as "the extent to which one feels a sense of belonging to the group, coupled with a sense of commonality with the group's members" (p. 331).	University adapting a f work on gr 2015): - "1- I feel a 2- I feel si [grou 3- I have a 4- I have a of my

4.1.5 Antecedents and Consequences of University Brand Identification

To achieve the third goal of the current comprehensive review of university brand identification literature, which is to present an expanded view of the previous antecedents and consequences of university brand identification, the following sub-sections offer a detailed discussion on these antecedents and consequences. Table 4.3 summarizes the previous antecedents and/or consequences of university identification that have been investigated or proposed in each of the studies resulting from the searching process.

4.1.5.1 Antecedents of University Brand Identification

This section offers a detailed discussion of the antecedents of university brand identification. Column three of Table 4.3 summarizes the previous antecedent factors of university brand identification that have been investigated or proposed in each study of the studies that have been included in the current literature review. As presented in Table 4.3, eight studies of the thirty-eight studies that have been included in the current review did not propose any antecedent factors of university brand identification neither empirically nor conceptually (i.e., Bliuc *et al.*, 2011; Cho and Yu, 2015; Rodríguez *et al.*, 2019; Tom and Elmer, 1994; Tong, 2014; Wear *et al.*, 2016; Wilkins and Huisman, 2013; Wilkins *et al.*, 2016). The careful analysis of the antecedents of university brand identification that has been proposed or investigated in the remaining studies reveals the following observations:

- Using different criteria to classify the antecedent variables of university brand identification. Similarly, to the previous attempts in the marketing literature (e.g., Bhattachary *et al.*, 1995; Stokburger-Sauer *et al.*, 2012; So *et al.*, 2017) and organizational behavior literature in grouping the antecedents variables of the identification into main groups (e.g., Ashforth *et al.*, 2008; Dutton *et al.*, 1994), there are also several attempts to grouping the antecedents of university brand identification into main categories (i.e., Bass *et al.*, 2013; Mael and Ashforth, 1992; Porter *et al.*, 2011). More specifically, Mael and Ashforth (1992) suggested two main antecedent categories of university brand identification: university antecedents category, which includes the variables of perceived distinctiveness, perceived prestige, inter-organizational competition, and intra-organizational competition, and individual antecedents category, which includes the variables of satisfaction with the organization, sentimentality, and recency of attendance. Porter and his colleagues (2011) proposed two groups of the drivers of university identification: status drivers which include factors unique to the university attended (e.g., admission selectivity rating, perceived academic prestige, perceived athletic prestige), and affect drivers which include student university involvement and event attendance. In their conceptual framework of university brand identification from the alumni's perspective, Bass *et al.* (2013) anticipated three different categories of antecedents variables of university identification: academic program variables (i.e., the prestige of university and major department, university distinctiveness, and university competition), athletic program variables (i.e., perceived success, prestige, performance against rival universities, and visibility), and individual variables (i.e., time since graduation, satisfaction, relationships, sentimentality).

- Use of different terminologies for the same antecedent variable of university brand identification. Several antecedents which conceptualized in a similar way and captured using the same scale were addressed under different names. For instance, the prestige of the university, Mael and Ashforth (1992) used the concept of university prestige, Balaji *et al.* (2016) and Pinna *et al.* (2018) used the concept of university brand prestige, Myers *et al.* (2016) used the term of university construed external image, all of these studies adopted Mael and Ashforth's (1992) scale of university prestige.
- Use of different operationalizations for the same antecedent variable of university brand identification. Some antecedent factors which have a common concept were operationalized in different ways. For instance, the satisfaction as an antecedent factor of university identification, previous studies varied from studying the role of satisfaction as a global construct, means met an individual' expectations to the attainment of one's personal objectives (Mael and Ashforth, 1992; Myers *et al.*, 2016), to focus on the satisfaction with certain aspects such as academic experiences and the educational service received (Bass *et al.*, 2013; Sánchez-Fernández *et al.*, 2017; Schlesinger *et al.*, 2015), student affairs (Stephenson and Yerger, 2014a), student affairs and campus resources (Stephenson and Yerger, 2014b, 2015), and university life (Arslan and Akkas, 2014; Cho and Yu 2015).

- Different levels of consistency of the antecedent variables influence university brand identification. Whereas there were consistent results among studies on the significant influence of several antecedent factors, there were inconsistent results among studies on the influence of other factors. Among factors that there consistency in its significant influence on university identification; university prestige (Balaji *et al.*, 2016; Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992; Stephenson and Yerger, 2014a, 2014b), intra-organizational competition (Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992), university image (Chen, 2019; Jiménez-Castillo *et al.*, 2013; Sánchez-Fernández *et al.*, 2017; Schlesinger *et al.*, 2015), interpretation of the university brand (Stephenson and Yerger, 2014a, 2014b), perceived academic prestige (Bass *et al.*, 2013; Porter *et al.*, 2011), and athletic program prestige (Bass *et al.*, 2013; Porter *et al.*, 2011). On the other side, there were contradictory results in the influence of some other factors. For instance, while Mael and Ashforth's (1992) study demonstrated the positive influence of university distinctiveness on university brand identification, Fazli-Salehi *et al.* (2019) failed in supporting such a relationship. Also, Mael and Ashforth's (1992) study didn't show support for the influence of inter-organizational competition (perceived competition) on the identification with the university, other studies supported such a relationship (Fazli-Salehi *et al.*, 2019; Myers *et al.*, 2016). In a similar vein, the findings of Balaji *et al.*'s (2016) study did not show support for the influence of university brand knowledge on university brand identification, which was contradicts the results of Pinna *et al.*'s (2018) study as it showed support to this relationship. Finally, Balaji *et al.* (2016) and Palmer *et al.* (2016) failed to support the influence of university brand personality, which was conceptualized as a unidimensional construct on student university brand identification. Otherwise, Polyorat (2011) conceptualized university brand personality as a multidimensional construct and supported the significant influence of some of these dimensions on university brand identification and others not.
- Considering the differences between students and alumni in their relationship with the university, several studies that focused on the identification with the university from alumni's perspective investigated some factors apply only to alumni-university relationship

setting such as time since graduation (in another name the recency of membership), relationships with other alumni, and sentimentality which refers to the tendency to obtain emotional ties to the past and enjoying discussing the past (Bass *et al.*, 2013; Mael and Ashforth, 1992). Also, Stephenson and Yerger (2014b) in their study of university brand identification among alumni of a mid-sized state-run university in the mid-Atlantic region of the United States supported the positive influence of alumni's involvement in campus-related activities (e.g., alumni events, regional alumni activities and sponsored events) on alumni's identification with the university.

4.1.5.2 Consequences of University Brand Identification

This section presents a detailed discussion of the consequences of university brand identification. The right part of Table 4.3 outlines the previous consequence factors of university brand identification that have been investigated or proposed in the extant literature of university brand identification. Interestingly in a similar way to the studies in the antecedents of university brand identification, eight studies from the thirty-eight studies that have been included in the current review did not study any consequence factors of university brand identification empirically neither conceptually (Arslan and Akkas, 2014; Balmer *et al.*, 2020; Dollinger *et al.*, 2018; Eldegwy *et al.*, 2018; Jiménez-Castillo *et al.*, 2013; Sánchez-Fernández *et al.*, 2017; Stephenson and Yerger, 2015, 2016). The comments on the previous studies on the consequences of university brand identification can be summarized in the following:

- Different types of consequence factors of university brand identification have been investigated. Previous studies have examined a variety of consequence factors of university brand identification. Most of these factors can be listed under extra-role behaviors which are the behaviors that are not purely related to the self-interest of students or alumni. For instance, support for the university (Mael and Ashforth, 1992; Bass *et al.*, 2013; Stephenson and Yerger, 2014b; Palmer *et al.*, 2016), word-of-mouth (Polyorat, 2011), alumni giving (Porter *et al.*, 2011), alumni promotions (Porter *et al.*, 2011; Stephenson and Yerger, 2014a), suggestions for improvements (Balaji *et al.*, 2016; Pinna *et al.*, 2018), university affiliation

(Balaji *et al.*, 2016; Pinna *et al.*, 2018), and participation in future activities (Balaji *et al.*, 2016; Myers *et al.*, 2016; Pinna *et al.*, 2018).

- Use of different operationalizations to the same consequence variable of university brand identification. Several consequence factors that have a common conceptualization among the studies were operationalized in different ways. For instance, alumni supportive behaviors Bass *et al.* (2013) and Mael and Ashforth (1992) operationalized it as a multidimensional construct manifested in three dimensions (i.e., participating in various organizational functions, financial contributions, and willingness to recommend the university to others). In contrast, Palmer *et al.* (2016) addressed it as a unidimensional construct and captured it in two items (i.e., intention to come back and give a talk to students and offering to act as a mentor for students).
- Use of different terminologies to refer to the same consequence variable of university brand identification. Some constructs which conceptualized or operationalized in a similar way were addressed in different synonyms. For instance, recommending the university to others, Balaji *et al.* (2016) and Pinna *et al.* (2018), termed it advocacy intentions, Porter *et al.* (2011) labeled it alumni promotions, whereas others studied it under the loyalty construct (Heffernan *et al.*, 2018; Palmer *et al.*, 2016).
- Loyalty is the most common consequence factor of university brand identification. Loyalty for a university is a commonly studied consequence variable among previous studies in the consequences of university brand identification from both students' perspective (El-Kassar *et al.*, 2019; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018; Schlesinger *et al.*, 2015) and alumni's perspective (Palmer *et al.*, 2016; Rodríguez *et al.* 2019).
- The proposal of the effect of university brand identification on student's commitment toward the study and their academic performance. Some researchers attempted to go beyond loyalty and support for a university to link between university brand identification and student's commitment toward the study and their academic performance (Bliuc *et al.*, 2011; Wilkins *et al.*, 2016). For instance, Wilkins *et al.* (2016) in their study of university brand identification among students enrolled in an undergraduate or a postgraduate program in business or management at two business schools (325 students were studying at an international

branch campus in the United Arab Emirates and 112 students were at a home country campus in the UK) supported the positive influence of university brand identification on students commitment toward their study and do the tasks required. The study findings' also showed support for the positive influence of university brand identification on student achievement. The authors developed a five-item scale to assess student's achievement and referred to only two items as an example of these items: "I am currently performing to the best of my ability" and "My grades likely put me in the top 25% of students in my degree programme".

4.1.6 Limitations and Identification of Research Gaps in the Extant Literature

The careful review of the extant literature in university brand identification revealed the following limitations, which are the base to identify the research gaps in the literature and the base to develop the conceptual model and research methodology proposed in this work.

- Few studies focused mainly on investigating an integrative model for the antecedents and consequences of university brand identification. Although the widespread review of university brand identification literature revealed thirty-eight studies have been conducted on this research topic, not all of these studies focused mainly on investigating an integrative model for the antecedents and consequences of university brand identification. Previous studies in university brand identification can be classified according to their main focus to the following groups of studies:
    - Studies included university brand identification as just one of the antecedents or consequences variable in the model of the investigation or the conceptual model proposed (e.g., Arslan and Akkas 2014; Dollinger *et al.*, 2018; Nevzat *et al.*, 2016; Stephenson and Yerger, 2015; Tong, 2014; Trullas *et al.*, 2018; Wear *et al.*, 2016). For instance, Dollinger *et al.* (2018) in their study towards a conceptual model of co-creation in higher education. The authors only mentioned that university brand identification could be one of the anticipated benefits for universities from the proposed model of value co-creation. Tong's study (2014) sought to explore factors that influence a student's perceived value and

purchase intentions toward university-licensed apparel. The author has included university brand identification as one of the drivers of student's perceived value of university-licensed apparel.

- Studies focused on studying the identification with the university group rather than the identification with a university's identity (i.e., Bliuc *et al.*, 2011; Di Battista *et al.*, 2014; Wakefield *et al.*, 2018).
- Studies focused only on studying antecedent factors of university brand identification (e.g., Balmer *et al.*, 2020; Jiménez-Castillo *et al.*, 2013; Sánchez-Fernández *et al.*, 2017; Stephenson and Yerger, 2016).
- Studies concentrated only on exploring consequence factors of university brand identification (e.g., Cho and Yu, 2015; Rodríguez *et al.*, 2019; Tom and Elmer, 1994; Wilkins *et al.*, 2016).

Thus, few studies have focused on developing a model for the antecedents and consequences of university brand identification to make our understanding more comprehensive about this topic (e.g., Balaji *et al.*, 2016; Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992), which causes to make our understanding of university brand identification topic to be rather fragmented.

- Inconsistent findings in the relationship directionality between university brand identification and a number of variables. Existing literature does not offer a clear-cut answer in the relationship directionality between university brand identification and some variables. While several have reported the role of those factors as antecedent factors of university brand identification, others have reported the opposite and documented the role of those factors as consequence factors of university brand identification. Those factors include:
  - **Satisfaction**: Although few studies that investigated the relationship between the students'/alumni's overall satisfaction with the university and their identification with the university (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Schlesinger *et al.*, 2015; Wilkins *et al.*, 2016), there are a discrepancy between these studies in the direction and the significance of the relationship between

the two constructs. Whereas Schlesinger *et al.* (2015) and Myers *et al.* (2016) supported the positive influence of satisfaction on university brand identification, Heffernan *et al.* (2018) and Wilkins *et al.* (2016) demonstrated the positive influence of university brand identification on satisfaction. On the other side, Fazli-Salehi *et al.* (2019) failed to support the significance of the influence of student satisfaction on university brand identification.

- **Trust**: the current review of university brand identification literature revealed three studies that addressed the relationship between trust and university brand identification (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016) and the results of these studies reported contradictory findings in direction of the linkage between the two constructs. While Heffernan *et al.* (2018) and Myers *et al.* (2016) supported the path directionality from trust to university identification, Nevzat *et al.* (2016) reported the path directionality from university brand identification to trust.

➢ limitations of the extant literature regarding the sample used. Methodologically, one of the core limitations of the existing studies on university brand identification resulting from the searching process is that the largest share of these studies have adopted the cause study approach as the data were collected from only one university, which raises fears of generalizability of the results of these studies. These results may reflect a specific situation of the university where each of these studies was conducted and these results may differ in another university with a different setting. Precisely, after excluding the two conceptual studies (i.e., Bass *et al.*, 2013; Dollinger *et al.*, 2018) and Wilkins and Huisman's study (2013) which investigated university brand identification among high school students (as prospective university students), 77.1 % of the remaining studies (27 studies) had drawn on data came from only one university (e.g., Myers *et al.*, 2016; Palmer *et al.*, 2016; Rodríguez *et al.*, 2019; Sánchez-Fernández *et al.*, 2017; Trullas *et al.*, 2018).

➢ As previously mentioned, the literature of university brand identification is an extension to the literature of self-identification relationship literature in both organizational behavior studies (e.g., Bergami and

Bagozzi, 2000; Dukerich *et al.*, 2002; Dutton *et al.*, 1994; Fuller *et al.*, 2006; Kim *et al.*, 2010) and in marketing studies (e.g., Ahearne *et al.*, 2005; Bhattacharya and Sen, 2003; Currás-Pérez *et al.*, 2009; Han *et al.*, 2020; Stokburger-Sauer *et al.*, 2012), as these studies represent the primary theoretical and empirical underpinning in studying the antecedents and consequences of university identification. Additionally, the vast majority of the antecedents and consequences of university brand identification were derived from these studies. The review of self-identification relationship literature in both organizational behavior studies and marketing studies as presented in chapters two and three revealed that these studies had documented the pivot role of several cognitive factors such as a precursor to developing identification relationship with the target of identification (organization, company, or brand), the dominant factors of these cognitive drivers include:

- **Factors driven by self-definitional needs:** individuals are likely to be attracted to identify with the entities' identities that help them satisfy at least one of their three basic self-definitional needs (i.e., self-enhancement, self-continuity, and self-distinctiveness) (Bhattacharya and Sen, 2003; Dutton *et al.,* 1994). Accordingly, perceived self-similarity (to satisfy self-continuity needs), perceived prestige (to satisfy self-enhancement needs), and perceived distinctiveness (to satisfy self-distinctiveness needs) were deemed primary drivers for developing self-identification relationship (Bhattacharya and Sen, 2003; Dutton *et al.,* 1994). Thus, there is ample evidence in the literature that support such relationships in both organizational behavior literature and marketing literature, while there is a scarcity of evidence studying such relationships in the literature of university brand identification. This can be clarified in more detail below:
    - **Self-similarity:** the role of self-similarity to develop self-identification relationship with an entity to satisfy the individual's needs of self-continuity is well established in organizational behavioral studies (e.g., Cable and DeRue, 2002; Cinar, 2019; Griepentrog *et al.*, 2012) and its counterpart in the marketing literature (e.g., Elbedweihy *et al.*, 2016; Han *et al.*, 2020; Stokburger-Sauer *et al.*, 2012). However, there is a scarce of studies that addressed the self-similarity construct in the university setting in general and in developing a self-identification relationship with a

university in particular. The current literature review revealed only three studies that studied the linkage between university-self similarity and university brand identification. Furthermore, these studies have reported contradictory findings in the relationship between the two constructs.

- **Perceived prestige:** organizational behavioral studies have reported well the positive linkage between perceived organizational prestige and organizational identification (e.g., Bergami and Bagozzi, 2000; Dutton *et al.*, 1994; Dukerich *et al.*, 2002; Fuller *et al.*, 2006; Kim *et al.*, 2010; Smidts *et al.*, 2001). Also, marketing literature is amble with evidence that supports the influence of perceived company/brand prestige on consumer-company/brand identification (e.g., Chen *et al.*, 2015; Kuenzel and Halliday, 2008; Stokburger-Sauer *et al.*, 2012; Tuškej and Podnar, 2018). The extensive review of university brand identification revealed that there also several studies have investigated the influence of a university prestige on university brand identification (e.g., Balaji *et al.*, 2016; Fazli-Salehi *et al.*, 2019; Pinna *et al.*, 2018; Mael and Ashforth, 1992) to satisfy students/alumni need of self-enhancement, but the majority of these studies relied upon data come from only one university which raises fears about generalizing the results of those studies.
- **Perceived distinctiveness:** people are inclined more to link their identities with entities (e.g., persons, groups, organizations, brands) that they perceive as more distinctive than others to distinguish themselves and enhances their self-esteem (Ashforth and Mael, 1989; Bhattacharya and Sen, 2003; Dutton *et al.*, 1994). Consequently, several studies have reported the linkage between organizational distinctiveness and organizational identification (e.g., Griepentrog *et al.*, 2012; Reade, 2001). Also, several studies have reported the linkages between consumer's perception of the perceived distinctiveness of a company/brand and consumer-company/brand identification (Bhattacharya and Sen, 2003; Kim *et al.* 2001; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012; Wolter *et al.*, 2016). The review of university brand identification revealed only three studies that studied the relationship between university distinctiveness and university brand identification (Balmer *et al.*,

2020; Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992). Moreover, these studies reported discordant findings in the relationship between the two constructs.

- **Perceived attractiveness:** Dutton *et al.* (1994) argue that the degree to which the perceived organizational identity affects a person's identification level depends on the attractiveness of this identity to the person and proposed that the greater the attractiveness of the perceived organizational identity, the stronger a person's organizational identification. The crucial role of an individual's perceived attractiveness of an entity's identity (organization, company, brand) as a key antecedent of the individual's identification with that entity is well inherent in both organizational behavioral studies and marketing studies (e.g., Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009; Kim *et al.*, 2001; Marin and de Maya, 2013; Marin *et al.*, 2009). Also, several studies have reported the importance of the mediating role of perceived attractiveness in the relationship between consumer-company/brand identification and its drivers (e.g., Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009). However, there is a scarce of studying such relationships in the university setting. Precisely the extensive literature review of university brand identification conducted in this study revealed that Balmer *et al.*'s study (2020) is the only study that showed interest in investigating the relationship between university brand attractiveness and university brand identification.
- **Corporate social responsibility:** the crucial role of an individual's perception of corporate social responsibility as a driver for developing self-identification relationship is well documented in organizational behavioral studies where the organization is the target for identification(De Roeck *et al.*, 2016; Jones, 2010; Kim *et al.*, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019; Nguyen, 2020) and also in marketing studies where a company/brand is the target for identification (e.g., Chen *et al.*, 2015; He and Li, 2011; Marin *et al.*, 2009; Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015; Silva *et al.*, 2020). However, there is a lack of studies that investigated the influence of student's perception of the social role of a university on the identification with the university. Specifically, the careful review of the university brand identification literature revealed that

El-Kassar *et al.*'s (2019) study is the only one available that served to examine the influence of students' perception of a university social responsibility on university brand identification.

In summary, there is a clear research gap in the literature on the role of the cognitive factors in developing a self-identification relationship with a university. Also, on the role of crucial relational constructs such as student satisfaction and student trust in developing self-identification relationships with a university.

Table 4.3 Antecedents and Consequences of University Brand Identification in the

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
Mael and Ashforth (1992)	Alumni	<u>*University antecedents*</u> – University distinctiveness *"the distinctiveness of the university's values and practices relative to those of other universities"* (S) – University prestige *"the relative high-status position of the university"* (S) – Interorganizational competition (perceived competition) *"refers to competition between the university and other universities"* (NS) – Intra-organizational competition (-) *"refers to ingroup favoritism inside the organization"* (S) <u>*Individual antecedents*</u> – Tenure with the organization *"the amount of time in which a person is actively involved with an organization"* (S) – The recency of membership *"the length of time since leaving the university"* (NS) – Number of comparable organizations joined (-) *"refers to be a member in more than one organization in the same social classification"* (NS) – Existence of mentor *"individuals who establish a close, mentor-like relationship with a faculty member"* (NS)	– Support for th *of behaviors dimensions": -* 1. Participa function 2. Financia 3. Willingn others to

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– Satisfaction with the organization *"the contributing of the organization to the attainment of one's personal objectives"* (S) – Sentimentality *"the tendency to retain emotional and/or tangible ties to one's past, and to derive pleasure from discussing or reliving one's past"* (S)	
Tom and Elmer (1994)	Alumni	-	– Willingness *contribute is a contribute"* (S) – Actual contri *behavioral mar*
Balmer and Liao (2007)	Students	– The strength of student identification with a corporate brand is "predicated on the awareness, knowledge, and experience of a brand".	
Kim *et al.* (2010)	Students	– Identification with athletic programmes (S) – Identification with the academic department *"the degree of perceived similarity between an individual and his/her academic department"* (S)	– Supportive in *an explicit def referred for on used to measu donate when h*
Bliuc *et al.* (2011)	Students	-	The study examine <u>*The first model inclu*</u> – Deep appro *learning reflec their learning students who s*

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
			outcomes and *academic asses* – Academic ach *the final assess* <u>*The second model inc*</u> – Surface appr *students who* *superficial way* *results"* (S) – Academic ach *of the final asse*
Polyorat (2011)	Student	<u>Brand personality dimensions "*refers to personality traits associated with a brand*": -</u> – Sincerity "*down-to-earth, honest, wholesome and cheerful*" (S) – Excitement "*daring, spirited, imaginative and up to date*" (NS) – Competence "*reliable, intelligent and successful*" (S) – Sophistication "*upper class and charming*" (NS) – Ruggedness "*outdoorsy and tough*" (S)	– Word-of-Mou *between consu* *products or ser*
Porter *et al.* (2011)	Alumni	<u>*Status drivers*</u> <u>*"factors unique to the university attended and are grouped into athletic and academic categories"*</u> – Admission selectivity rating *"the authors didn't offer a specific definition of admissions selectivity ratings, but they referred that*	– Alumni givin *made by alumn* – Alumni prom *endorse their u*

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari

		admissions selectivity ratings provide an objective measure of the quality of the entering students" (NS)
		– Perceived academic prestige *"an individual's subjective opinions about the status of the university's academic programs"* (S)
		– Athletic category *"the status of the athletic program based on its financial resources, scholarships, and media exposure"* (NS)
		– Perceived athletic prestige *"an individual's subjective opinions about the status of the university's athletic program"* (S)
		– The presence of the university football team*"means that university have football teams"* (NS)
		
		Affect Drivers "factors that capture individual experiences that promote an affective attachment with the university"
		
		– Student university involvement *"participation in extracurricular activities"* (S)
		– Event attendance *"participation in university-related events"*: -
		    - Other university sporting events (NS)
		    - University football games (NS)
		    - University academic events (S)
		    - University basketball games (NS)
		    - University cultural events (S)	

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
Bass *et al.* (2013)	Alumni	*Academic program variables* – Academic distinctiveness (*) – University prestige (*) – Major department prestige (*) – University competition (*) *Athletic program variables* " – Athletic program prestige (*) – Athletic program perceived success (*) – Performance against rival universities (*) – Visibility of the athletic department (*) *Individual variables* – Time since graduation (*) – Satisfaction with education (*) – Relationships with other alumni (*) – Sentimentality *"the tendency to obtain emotional ties to the past and enjoying discussing the past"* (*)	*Support for the univ* – Participation – Alumni givin – Encouraging
Jiménez-Castillo *et al.* (2013)	Alumni	– University image *"graduate impressions about the strengths and weaknesses of the university"* (S) – Perceived value of the university *"the authors argue that perceived value is broader and richer than the trade-off between "utility" and "price" and referred to it as interactive relativistic preference experience"* (S)	

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
Wilkins and Huisman (2013)	Prospective students	-	– Prospective *"reflects studer and positive in*
Arslan and Akkas (2014)	Students	– Student's satisfaction with college life *"the overall or global feelings of satisfaction a student experienced with life at college"* (S)	
Di Battista *et al.* (2014)	Students	– Sense of justice *"the perceptions of fairness regarding outcomes or processes that occur in the instructional context"* (S)	– Rule-abiding *behaviors that a or norms"* (NS – Extra-role bel *not directly re from within th*
Stephenson and Yerger (2014a)	Alumni	– University brand prestige *"the alumni's beliefs about the perception of the university held by others"* (S) – Interpretation of the university brand *"the interpretation of the brand in the mind of the consumer"* (S) – Satisfaction *"captured through assessment of alumni satisfaction with student affairs during their studies"* (S)	<u>*Brand supportive dimensions: -*</u> – Promotional *speaking pos recruiting for t the university* – Competitive *competitive att* – Seeking cont *with the focal dimensions"* - Use of - Use o channe

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
Stephenson and Yerger (2014b)	Alumni	– University brand prestige *"the alumni's beliefs about the perception of the university held by others"* (S) – Interpretation of the university brand *"the interpretation of the brand in the mind of the consumer"* (S) – Alumni satisfaction *"captured through assessment of alumni satisfaction with student affairs and satisfaction with campus resources during their studies"* (S)	*Alumni supportive dimensions:* – The likelihood – Amount of m – The number c
Tong (2014)	Students	–	– The perceived apparel *"refle from consump*
Cho and Yu (2015)	Students	–	– Perceived u *perception of t the extent to contributions a* – University-lif *provide a sp satisfaction, bu of satisfaction emotional stat one's job or job* – Psychological
Schlesinger *et al.* (2015)	Students	– Quality of the student-professor interaction (NS) – University image *"the overall impression left in the minds of customers"* (S)	– Loyalty *"the c one specific obj supplier)"* (S)

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– Satisfaction *"graduate satisfaction is a short-term attitude that results from the evaluation of alumni' experiences with the educational service they have received"* (S)	
Stephenson and Yerger (2015)	Alumni	– Alumni satisfaction *"captured through assessment of alumni satisfaction with student affairs and satisfaction with campus resources during their studies"* (S)	
Balaji *et al.* (2016)	Students	– University brand personality *"the extent to which students consider the personality traits of the university in terms of being friendly, stable, practical, and warmth"* (NS) – University brand prestige *"the relative high-status position of the university"* (S) – University brand knowledge *"the students' perception of how knowledgeable s/he is about the communications, values, and benefits associated with the university"* (S)	– Participation *of students to held and spons* – Advocacy int *safeguarding t* – University *students publi university by products that a* – Suggestions f *where students contribute idea service to the s*
Myers *et al.* (2016)	Students	– University's construed external image *"students' belief about how outsiders view the university"* (S) – Perceived inter-organizational competition *"the competition between the university and other universities"* (S)	– Intended fu university *"w potential stud other univers financially, att region, attend*

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– Perceived trustworthiness of the university *"the confidence in an exchange partners' reliability and integrity"* (S) – Satisfaction with the university *"the students' feeling that their university was positively contributing to the accomplishment of their lifetime goals"* (S)	*with the alumn* *major departm*
Nevzat *et al.* (2016)	Students	– The strength of the university Facebook community "*the degree to which members of the university Facebook page feel connected to one another, share information and their experiences, and how useful they perceive these exchanges to be*" (NS)	– University b *average consu* *to perform its s*
Palmer *et al.* (2016)	Alumni	– Recalled academic experience *"captured through evaluating academic and intellectual development during studies"* (S) – Recalled social experience *"captured through evaluating peer group interactions during studies"* (S)	– Intended univ *items: intent* *students and o* (S) – loyalty towar *referred that th* *education and* *university bra* *positive things* *the university* *again if he/she* *the interest in* (S)
Stephenson and Yerger (2016)	Students	– Academic expectations *"the intellectual aspects of college that the student is looking forward"* (S)	

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– Social expectations *"the non-academic aspects of college that the student is looking forward to, such as interacting with friends and attending events"* (S) – Academic obstacles (-) *"the perceptions of potential challenges surrounding the intellectual aspects of college"* (S) – Financial obstacles (-) *"the perceptions pertaining to the ability to pay for college"* (NS) – Personal obstacles (-) *"the perceptions of challenges based on individual concerns such as homesickness and being able to make friends"* (NS)	
Wear *et al.* (2016)	Students	–	– Brand equity *authors argue university mig of the sportswe is a direct affili the university equity"* (NS)
Wilkins *et al.* (2016)		–	– Student ac *outcomes"* (S) – Student sa *satisfaction wi* – Student com *toward their st*

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
Sánchez-Fernández *et al.* (2017)	Alumni	– Alumni's satisfaction with a university *"satisfaction is an attitude resulting from students' evaluation of their experience with the education service received"* (S) – Alumni's perceived image of a university *"the overall impression of an organization in the minds of the public"* (S)	
Dollinger *et al.* (2018)	Students	– Value co-creation *"a marketing and management strategy that incorporates consumer resources to jointly co-create new and innovative forms of value"* (*)	
Eldegwy *et al.* (2018)	Students	– Student satisfaction *"meet the student's expectations"* (S)	
Heffernan *et al.* (2018)	Students	– Reputation *"the overall evaluation of the extent to which a university is substantially good or bad"* (S) – Trust *"the consumer expects that the organization will act with integrity and that it will be reliable"* (S)	– Loyalty *"a dee patronize a pre in the future, t or same brand-* – Extra-role be *students' beha participate in a passing on inf university, an improve the un* – Satisfaction "
Pinna *et al.* (2018)	Students	– Self-brand connection *"the degree to which consumers have incorporated the brand into their self-concept"* (S)	– Advocacy *university to o*

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– University brand prestige *"the relative high-status position of the university"* (S) – University brand knowledge *"the students' perception of how knowledgeable s/he is about the communications, values, and benefits associated with the university"* (NS) – University brand personality *"refers to personality traits associated with the university brand (friendly, stable, practical, warmth)"* (NS)	– Suggestions f *opinions, and with the empl improve the s better service t* – Participation *readiness of stu participating university"* (S) – University a *student wears university nam* – Turnover inte *leave or change*
Trullas *et al.* (2018)	Students	– Student-perceived organizational support *"the degree to which the employees of an institution believe that the organization in which they work values their contributions and is concerned about their well-being"* (S) – Perceived employability *"the perception of the personal capacity to obtain appropriate employment in terms of the level of qualification that is expected to be acquired during their studies"* (S)	– Satisfaction " *the same univ same choice ag the university someone asked will speak abou*
Wakefield *et al.* (2018)	Students	– Satisfaction with life over time *"the assessment of a person's quality of life according to his chosen criteria"* (NS)	– Satisfaction w *a person's qu criteria"* (S)

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
Chen (2019)	Students and alumni	– University brand awareness *"the actual presence of a brand in the minds of consumers"* (S) – University brand image *"combination of beliefs held towards a particular brand"* (S)	<u>*Students' positive W*</u> – Satisfactory e – Recommenda
El-Kassar *et al.* (2019)	Students	– University social responsibility *"the authors implicitly indicated that the organization's socially responsible behavior takes into consideration the needs and interests of all affected stakeholders"* (S)	– Student loya *that student l recruitment an*
Fazli-Salehi *et al.* (2019)	Students	– Prestige *"perceptions that other people, whose opinions are valued, believe that a brand or an organization is well-regarded (e.g. respected, admired, prestigious, well-known)"* (S) – Distinctiveness *"relates to how an entity is different from competitors"* (NS) – Corporate communication *"defined as organizations providing information to customers"* (S) – Satisfaction *"the emotional or cognitive response of the owner of a brand toward it after purchasing and using the brand for a period of time"* (NS) – Memorable experience *"the extent to which consumers have positive, affectively charged memories of previous brand experiences"* (NS) – Value congruence *"a mental comparison made by consumers regarding the similarity or dissimilarity of an entity's values and their own set of values"* (S)	– WOM comm the brand a products/ser – Active engag *"when custom resources on th beyond those re consumption o* Loyalty "refers to (S)

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– Brand personality congruence *“refers to the similarity of a person’s perception of a brand personality to their own personality”* (NS) – Perceived quality “refers to superiority or excellence” – Inter-organizational competition (S) – Intra-organizational competition (S) Social benefits *“interaction opportunities and gains afforded by a brand”* (S)	
Rodríguez *et al.* (2019)	Alumni	-	Loyalty *“as for th feeling of loyalty aspects: the affec stakeholder can sh organization, wher analyze the influen repetitive behavior organization”* (S)
Yao *et al.* (2019)	Students	Campus diversity *“which measure how respondents felt about their campuses’ diversity”* (NS)	University bran *authors drew on citizenship behavio beyond formal promoted the effect* (S)
Balmer *et al.* (2020)	Students	– Business school brand attractiveness – Business school brand similarity *“refers to consumers’ perception that a company identity to be similar to their own”* (NS)	

Author/s (Year)	Perspective	Antecedents Variable/s	Consequence Vari
		– Business school brand attractiveness *"the attractiveness of a brand is based on the extent to which a customer has a favorable evaluation of its characteristics"* (S) – Business school brand similarity *"students perceive a similarity between themselves and business school brand"* (NS) – Business school brand distinctiveness *"relates to those key dimensions of a corporate brand to which customers attach value"* (S) – Business school tuition fee (price) "*price can be defined as the amount an organization charges for its products and services, including the goodwill element in the valuation of its corporate and product brands*" (S) – Metropolitan city brand "*a city brand is an assembly of tangible and intangible assets that differentiate a city from others and includes the natural environment, historical features, culture, attributes, personality, and values"* (S) – Higher education country brand (S) Campus locale *"a positive atmosphere for students: encompass, among other things, buildings, architectural style, facilities, location, setting, and general atmosphere"* (NS)	

Note: (S)= hypothesized relationships are empirically supported; (NS)= hypothesized relationships are not empiric
papers, hypothesized relationships are not empirically examined.

4.2 Conceptual Model and Hypotheses Development

This part aims to present a conceptual model of the relationships between university brand identification and a variety of possible antecedents and consequences factors. In an attempt to overcome some of the limitations identified in previous literature of university brand identification as noted above, the conceptual model (Figure 4.3) illustrates the potential antecedents and consequences of university brand identification to be investigated in this study. The model draws on theories of social identity (Tajfel and Turner, 1979), self-categorization (Turner *et al.*, 1987), together with ideas from self-identification relationship literature in both organizational behavior studies (e.g., Dutton *et al.*, 1994; Dukerich *et al.*, 2002; Kim *et al.*, 2010; Smidts *et al.*, 2001) and marketing studies (e.g., Ahearne *et al.*, 2005; Bhattacharya and Sen, 2003; Currás-Pérez *et al.*, 2009; He *et al.*, 2012). Next, each of the variables proposed to be included in the conceptual model is shown, offering its definition according to the organizational and marketing literature and for the university context. Then, the relationship with the central variable with university brand identification and/or other variables included in the conceptual model is discussed and based on that, the research hypotheses are proposed.

4.2.1 University Brand Attractiveness

The attractiveness of an entity's identity (e.g., organization, company, brand) is based on the extent to which a person has a favorable evaluation of that identity (Ahearne *et al.*, 2005; Balmer *et al.*, 2020; Currás-Pérez *et al.*, 2009). Social Identity Theory postulates that individuals strive to identify with social groups if they find it to be attractive and capable of enriching their social identity (Tajfel and Turner, 1985). Drawing on this argument, identification studies in both organizational behavior studies (e.g., Cinar 2019; Dutton *et al.*, 1994) and in marketing studies (e.g., Bhattacharya and Sen, 2003; Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009) argue that individuals' evaluation of the attractiveness of an entity's identity (e.g., organization, company, brand) assessed in relation to how this identity helps them to satisfy their key self-definitional needs (i.e., self-continuity, self-enhancement, and self-distinctiveness). Organizational behavior literature showed empirical support to the predicating role of organizational attractiveness on organizational identification (e.g., Cinar 2019). Also, several studies in the marketing literature have documented the positive influence of a company/brand attractiveness on consumer identification, as the greater a consumer perceives a company's/brand's identity to be attractive, the stronger is a consumer's identification with the company/brand (e.g., Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009; Kim *et al.*, 2001; Marin and de Maya, 2013; Marin *et al.*, 2009) (see section 3.3.1.5 in chapter 3 for more details in the relationship between a company/brand attractiveness and a consumer identification).

Drawing on the previous definition of an entity attractiveness, university brand attractiveness is defined as the extent to which an individual (e.g., student, alumnus/alumna) has a positive evaluation of a university's identity. Indeed, as was noted in the limitations of the extant literature on university brand identification, Balmer *et al.*'s study (2020) is the only study among the studies included in the current review that investigated the relationship between university brand attractiveness and university brand identification. The authors focused on studying students' identification with their business school brand. Drew on a sample of 250 international postgraduate business students in London the study's findings supported the positive influence of business school brand attractiveness on students' identification with the business school brand. Thus, by following the same logic of previous studies on the linkage between organizational attractiveness and organizational identification in organizational behavior studies and its counterpart in marketing literature on the relationship between a company/brand attractiveness and consumer identification with the company/brand and the findings of Balmer *et al.*'s study (2020), it seems reasonable to propose that university brand identification is influenced by the extent that the university's identity perceived to be attractive.

Hypothesis 1: *University brand attractiveness is positively related to university brand identification.*

4.2.2 University-Self Similarity

Self-similarity is defined as an individual's perception of the congruity or similarity between his/her own self-concept (i.e., identity) and that of relevant entities (e.g., person, group, organization, brand) (Bhattacharya and Sen, 2003; Dutton *et al.*, 1994; Stokburger-Sauer *et al.*, 2012). Self-similarity can help individuals fulfill their self-definitional needs for continuity or verification (Elbedweihy *et al.*, 2016; Tuškej *et al.*, 2013). The self-continuity need (i.e.

consistency of self-concept) is defined as "the motive to behave consistently with our views of ourselves" (Banister and Hogg, 2004, p. 852). Previous organizational behavior studies into the self-similarity between individuals and organizations have shown that satisfying the need for continuity in self-concept underlies why people's preference for working in certain organizations that they perceive as similar to themselves on important issues (O'Reilly *et al.*, 1991). Similarly, marketing literature has reported that customers are attracted to relating to the companies or brands whose identity consistent with their sense of self to maintain a certain self-continuity or stability (Bhattacharya and Sen, 2003; Escalas and Bettman, 2003).

Studies suggest that the individual's perception of the congruity or similarity between his/her identity and an entity's identity accounts for the attractiveness of the entity's perceived characteristics (e.g., Bhattacharya and Sen, 2003; Dutton *et al.*, 1994). In other words, an entity's identity tends to be attractive for individuals when this identity matches the individuals' sense of self (Bhattacharya and Sen, 2003). In support, Cinar (2019) in his study of the mediating role of organizational attractiveness in the relationship between organization-self similarity (i.e., person-organization fit) and organizational identification finds that person-organization fit is related to organizational attractiveness. In the same vein, several marketing studies have reported the positive influence of brand-self similarity on consumer brand identification (e.g., Currás-Pérez *et al.,* 2009; Elbedweihy *et al.*, 2016). For instance, Currás-Pérez *et al.* (2009) find that brand coherence (which refers to a brand identity characteristic that helps consumers maintain a consistent sense of who they are) is positively related to brand attractiveness.

On the other side, the direct link between individual self-similarity with an entity's identity and individual identification with that entity is well established in the organizational behavior studies as well in the marketing studies. More specifically, several organizational behavior studies documented the positive influence of organization-self similarity on organizational identification (e.g., Cable and DeRue, 2002; Cinar, 2019; Griepentrog *et al.*, 2012) (see section 2.4.1.3 in chapter 2 for more review of the literature in the relationship between organization-self similarity on organizational identification). Similarly, numerous studies in the marketing literature reported the positive influence of brand-self similarity on consumer's brand identification (e.g., Elbedweihy *et al.*, 2016; Han *et al.*, 2020; Stokburger-Sauer *et al.*, 2012) (see section 3.3.1.3 in the previous chapter for more review of previous studies in the linkage between a company/brand-self similarity and consumer identification with that company/brand).

Interestingly, considering the potential direct influence of an entity-self similarity on both the attractiveness of the entity's identity and individual's identification with the entity, several studies showed interest in studying the mediating role of the entity identity attractiveness in the effect of the entity-self similarity on individual identification with the entity. For instance, the findings of Cinar's (2019) study, which as mentioned above, have supported the direct effect of person-organization fit on organizational attractiveness, the findings also showed that organizational attractiveness partially mediates the relationship between person-organization fit and organizational identification. In contrast, Elbedweihy *et al.*'s (2016) study supported the direct influence of value congruence (the similarity between consumers' personal values and their perceptions of the brand values) on brand attractiveness in the TVs product category (the study was conducted on consumers of two product categories mobile phones and TVs) and on consumer's brand identification in both product categories, but the results did not offer support to the mediating role of brand attractiveness in the effect of value congruence on consumer brand identification in both categories.

University-self similarity can be defined as an individual's (e.g., student, alumnus/alumna) perception of the congruity or similarity between his/her own self-concept (i.e., identity) and university identity. Indeed, there is a lack of research in studying this construct and its consequences in a university setting in general (e.g., Schlesinger *et al.*, 2017), and in the identification relationship with the university in particular (Balmer *et al.*, 2020; Fazli-Salehi *et al.*, 2019). Schlesinger *et al.* (2017) in their study of the importance of satisfaction, trust, image, and shared values in the direct and indirect explanation of alumni loyalty find that university-self similarity manifested in shared values (i.e., the similarity in the alumni' values and that of the university) is a key influential factor on alumni's trust, loyalty and their perceived perception of the university image.

As was noted in the limitations of the extant literature on university identification, there is a shortage of studies that dealt with the relationship between university-self similarity and university identification. More specifically, the current review revealed only three studies that investigated this relationship (Balmer *et al.*, 2020; Fazli-Salehi *et al.*, 2019; Pinna *et al.*, 2018). Pinna *et al.*'s (2018) study sought to investigate the influence of self-university brand connection on university brand identification. However the authors drew on Escalas and Bettman's (2003) definition of self-brand connection which defined as the extent to which individuals have incorporated brands into their self-concept, they measured self-university brand connection using Cable and DeRue's (2002) three items scale that developed to measure the similarity in the individual values and that of the organization. The findings showed that the self-university brand connection is positively related to university brand identification. In their study of corporate brand attractiveness and identification in higher education, Balmer *et al.* (2020) sought to study the effect of business school brand similarity on students' identification toward business school brand directly and indirectly through business school brand attractiveness. The study's findings showed that business school brand similarity is positively related to business school brand attractiveness and only indirectly to students' identification toward business school brand as business school brand attractiveness mediates this relationship. Like previous studies that have distinguished between brand-self similarity in values and brand-self similarity in personal traits (e.g., Tuškej *et al.*, 2013; Stokburger-Sauer *et al.*, 2012), Fazli-Salehi *et al.* (2019) sought to investigate the effect of both brand personality congruence and value congruence on university brand identification. They find that value congruence is positively related to university brand identification, whereas brand personality congruence is not.

Given the above discussion, it seems reasonable to further investigate the relation between university-self similarity and both university brand attractiveness and university brand identification. Thus, it is proposed that university brand attractiveness and university brand identification are influenced by university-self similarity.

Hypothesis 2: *University-self similarity is positively related to university brand attractiveness.*

Hypothesis 3: *University-self similarity is positively related to university brand identification.*

4.2.3 University Prestige

Perceived prestige of an entity (e.g., organization, brand, person) refers to the individual's perception of the states or esteem associated with this entity (Dutton *et al.*, 1994; Stokburger-Sauer *et al.*, 2012). One of the key assumptions of Social Identity Theory is the self-esteem premise which states that people feel motivated to evaluate themselves positively (Tajfel and Turner, 1979, 1986). Drawing on self-esteem premise identification researchers argue that individuals seek to identify with positively perceived groups to enhance and improve their self-esteem (Ashforth and Mael, 1989; Smidts *et al.*, 2001). For instance, Ashforth and Mael (1989) mentioned that individuals often cognitively identify themselves with a winner to satisfies their self-esteem. The self-esteem premise is closely linked to the definitional principle of self-enhancement (the desire that a person has to feel good about oneself and to be validated positively by others he/she cares about) (Currás-Pérez *et al.*, 2009; Dutton *et al.*, 1994; Hogg *et al.*, 1995).

Accordingly, organizational behavior studies documented the linkage between organizational prestige and organizational identification (e.g., Bergami and Bagozzi, 2000; Dukerich *et al.*, 2002; Dutton *et al.*, 1994; Fuller *et al.*, 2006; Kim *et al.*, 2010; Smidts *et al.*, 2001) whereby employees seek to identify more with organizations that are evaluated favorably by outsiders to fulfill their self-enhancement needs and enhances their self-esteem. In sum, organizational prestige (also referred to as perceived external prestige, constructed external image) answers the individual's question 'what do outsiders think of me because I belong to this organization?' (am I valued?) (Fuller *et al.*, 2006, p. 819) (section 2.4.1.1 in chapter 2 provides more detail on the linkage between organizational prestige and organizational identification in organizational behavior literature).

From the marketing perspective, consumers also seek to identify with prestigious companies or brands to satisfy their self-enhancement needs by viewing themselves in the reflected glory of those companies/brands (Bhattacharya and Sen, 2003). In other words, identification with a prestigious company/brand improves the consumer's self because this association allows consumers to perceive themselves as having the favorable qualities of the company/brand which makes it prestigious for its publics (Bhattacharya *et al.*, 1995; Currás-Pérez *et al.*, 2009). Thus, the attractiveness of a company's/ brand's identity for an individual is likely to be determined in part by the individual's perceived prestige of this company/brand (Bhattacharya and Sen, 2003; Pratt 1998). Previous studies showed two ways in the linkage between company/brand prestige and consumer's identification with the company/brand.

On the one hand, Bhattacharya and Sen (2003) in their conceptual framework of consumer-company identification proposed that the perceived prestige of a company's identity influences consumer's identification with a company indirectly through enhancing the perceived attractiveness of the company's identity as a valid target for identification. In support, Currás-Pérez *et al.* (2009) empirically supported the positive influence of brand prestige on brand attractiveness which in turn has been found to relate positively with consumer identification with the brand.

On the other hand, numerous studies have linked a company/brand prestige and consumer identification directly (without the need for intermediate evaluations of its identity) (e.g., Chen *et al.*, 2015; Kuenzel and Halliday, 2008; Stokburger-Sauer *et al.*, 2012; Tuškej and Podnar, 2018) (section 3.3.1.1 in the previous chapter offers more detail in the relationship between company/brand prestige and consumer identification in the marketing literature).

Indeed, scholars have not reached a consensus in a standard definition of a university prestige as it has been defined in different ways in the literature. For instance, Mael and Ashforth (1992) defined university prestige as the degree to which a university has a high position both in absolute and comparative terms. According to Pinna *et al.* (2018), a university brand prestige expresses the overall prestigious view of the university in society. Moreover, others have drawn upon Dutton *et al.*'s (1994) definition of the construed external image of the organization and defined university prestige as the stakeholders' perception about how the outsiders view the university (e.g, Casidy and Wymer, 2016; Fazli-Salehi *et al.*, 2019; Myers *et al.*, 2016; Stephenson and Yerger, 2014a, 2014b). The current study agrees with the last view in conceptualizing university prestige as it is widely accepted in the literature. University members may feel proud of being a part of a well-respected university when they believe that outsiders see their university in a positive light because this strengthens and improving their self-esteem. The higher position for a university achieves several benefits for the university' students and the university itself; for students, belonging to a prestigious university will give them a good impression amongst potential employers; for universities, a prestigious brand helps in attracting better quality students and staff (Fuller *et al.*, 2006; Casidy and Wymer, 2016).

Following the same logic of the idea that the attractiveness of an entity's identity for an individual is likely to be determined in part by its perceived prestige, it seems sensible to argue that university prestige accounts for the attractiveness of a university' perceived characteristics (university brand attractiveness) as the more a university' identity perceived to has a favorable image among outsiders, the more the university's identity perceived to be attractive. Hence, it is proposed that university brand attractiveness is influenced by university prestige.

Hypothesis 4: *University prestige is positively related to university brand attractiveness.*

Previous literature has documented the positive influence of the perceived prestige of a university on several favorable attitudes and behaviors toward the university (e.g., Casidy and Wymer, 2016; Ciftcioglu, 2011; Sung and Yang, 2008). For instance, Sung and Yang (2008) find that students' perception of university prestige is positively related to students' supportive attitudes toward the university. Ciftcioglu (2011) investigated the influence of perceived university prestige on students' turnover intention. He found that perceived university prestige is negatively associated with students' turnover intention. Casidy and Wymer (2016) supported the direct influence of perceived university prestige on students' loyalty and their positive word-of-mouth about the university.

The current review of university brand identification literature revealed that seven studies among the studies included in the review highlighted the linkage between university prestige and university brand identification (i.e., Balaji *et al.*, 2016; Bass *et al.*, 2013; Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992; Pinna *et al.*, 2018; Stephenson and Yerger, 2014a, 2014b). For instance, Bass *et al.*'s (2013) in their conceptual framework of university identification proposed that university prestige is one of the anticipated drivers of university identification. Mael and Ashforth, (1992) find that university prestige is positively related to alumni's identification with their alma mater. In their research, Stephenson and Yerger (2014a, b) have also demonstrated the positive influence of university brand prestige on alumni's identification with the university. Balaji *et al.*'s (2016) study investigated the influence of students' perception of university prestige on university brand identification. The study findings showed that students' perception of university prestige is positively related to their identification with the university. In a similar way, Fazli-Salehi *et al.* (2019) in their study of students' identification with university brands among current students on public universities in Iran have reported the positive influence of university brand prestige on the identification with the university.

More specifically, after excluding Bass *et al.*'s (2013) conceptual framework the remaining six studies of studies that addressed the relationship between university prestige and university brand identification have documented the positive influence of university prestige on university identification. But four studies among these studies (i.e., Mael and Ashforth, 1992; Pinna *et al.*, 2018; Stephenson and Yerger, 2014a, 2014b) have adopted the case study approach as the data were collected from only one university, which means the results of these studies may reflect special cases where these studies were conducted. Therefore, it will be of interest to further investigate the relationship between university prestige and university brand identification in other universities with different settings. Thus, it is proposed that university brand identification is influenced by perceived university prestige.

Hypothesis 5: *University prestige is positively related to university brand identification.*

4.2.4 University Distinctiveness

The distinctiveness of an entity's identity (e.g., person, organization, company, brand) refers to how the entity's identity is distinguished from the other related entities (Bhattacharya and Sen, 2003; Dutton *et al.*, 1994; Mael and Ashforth). Social Identity Theory asserts that individuals seek to accentuate their own distinctiveness in interpersonal contexts (Tajfel and Turner, 1986). Thus, people are inclined more to link their identities with entities (e.g., persons, groups, organizations, brands) that they perceive as more distinctive than others to distinguish themselves and enhances their self-esteem (Ashforth and Mael, 1989; Bhattacharya and Sen, 2003; Dutton *et al.*, 1994).

Drawing on Social Identity Theory organizational behavior studies have linked organizational distinctiveness and organizational identification. On the one hand, Dutton *et al.* (1994) in their seminal article on organizational identification suggested that members find organizations as attractive targets for their identification when their social identities there provide them with a sense of distinctiveness. On the other hand, several studies have reported the direct influence of the influence of organizational distinctiveness on organizational identification (e.g., Griepentrog *et al.*, 2012; Reade, 2001).

In the marketing literature, Tian *et al.* (2001) argue that the need for distinctiveness is best reflected in the "consumer's need for uniqueness" construct. Thus, the selection of brands with distinctive identities with comparable brands can partially contribute to fulfilling customer needs for self-distinctiveness (Bhattacharya and Sen, 2003; Tian *et al.*, 2001). Studies suggest that consumer perception of the distinctiveness of a company/brand identity accounts for the attractiveness of the company/brand perceived characteristics (e.g., Bhattacharya and Sen, 2003; Currás-Pérez *et al.*, 2009). Consequently, Bhattacharya and Sen (2003) proposed that "the more distinctive consumers perceive a company's identity to be on dimensions they value, the more that identity to be attractive for their identification with". In other words, consumers who believe a company identity has distinctive characteristics "are more likely to find it attractive and therefore are more predisposed towards identification with that company" (Ahearne *et al.*, 2005; Bhattacharya and Sen, 2003). In support, Currás-Pérez *et al.* (2009) empirically documented the positive influence of brand distinctiveness on brand attractiveness, which in turn was found to be related positively with consumer identification with the brand. On the other side, numerous studies had conducted on the direct influence of brand distinctiveness on consumer identification with the brand (without the action of intermediate variables) (e.g., Kim *et al.*, 2001; So *et al.*, 2017; Stokburger-Sauer *et al.*, 2012) (see section 3.3.1.2 in the previous chapter for more details on the direct linkage between brand distinctiveness and consumer identification with the brand).

University distinctiveness is defined as "the uniqueness of a university identity in relation to other comparable universities" (Mael and Ashforth, 1992). As was noted before, there is a lack of studies that dealt with the relationship between students'/ alumni's perceptions of the distinctiveness of a university's identity on the identification with the university. More specifically, the current comprehensive review of university brand identification literature revealed only three studies that investigated such a relationship (Balmer *et al.,* 2020; Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992), besides Bass *et al.*'s (2013) conceptual framework of university identification in which the authors highlighted the importance of the academic distinctiveness on the identification with the university.

In more detail, Bass *et al.* (2013) in their proposed conceptual framework of university identification suggested that academic distinctiveness is one of the academic program variables that supposed to related positively with university identification, which refers to the positive evaluation of the university academic programs in terms of offerings, location, traditions, or education styles incomparable to other universities' programs. Mael and Ashforth (1992) in their important article on alumni and their alma mater, in which they suggested two main groups of the antecedents of university brand identification (i.e., university antecedent variables and individual antecedent variables) have demonstrated the positive influence of university distinctiveness as one of the variables of the university antecedents group on alumni's identification with the university. In contrast, Fazli-Salehi *et al.*'s (2019) study findings did not show support for the direct influence of university brand distinctiveness on students' identification with university brands.

Most recently, Balmer *et al.* (2020) studied the effect of business school brand distinctiveness on students' identification toward business school brands directly and indirectly through business school brand attractiveness. The results of the study showed that business school brand distinctiveness is positively related to both business school brand attractiveness and students' identification toward business school brand. Also, the results of the indirect relationships supported the indirect effect of business school brand distinctiveness on students' identification toward business school brand due to the partial mediation effect of business school brand attractiveness in this relationship.

Given the scarcity of studies on the relationship between university distinctiveness and both university brand attractiveness and university brand identification, it seems sensible to conduct further investigation on these relationships. Thus, it is proposed that university brand attractiveness and university brand identification are influenced by university distinctiveness.

Hypothesis 6: *University distinctiveness is positively related to university brand attractiveness.*

Hypothesis 7: *University distinctiveness is positively related to university brand identification.*

4.2.5 University Social Responsibility

The social responsibility of an organization is defined as "the organization's status and activities related to its perceived societal obligations'' (Brown and Dacin's 1997, p. 68). This definition is widely accepted in CSR literature (e.g., Currás-Pérez, 2009; Currás-Pérez *et al.*, 2009). Although, prior literature in organizational behavior studies have documented the favorable consequences of CSR on employees' behaviors and attitudes toward their organization (e.g., Carmeli *et al.*, 2007; Kim *et al.*, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019) and also marketing literature have reported well the favorable consequences of CSR on consumers' behaviors and attitudes toward the companies/brands (e.g., Lichtenstein *et al.*, 2004; Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015), focusing on the social responsibility of universities as an important marketing tool may enhance from many desirable outcomes for universities is one of the new marketing trends in the higher education context that has emerged in the past few years (e.g., El-Kassar *et al.*, 2019; Ismail and Shujaat, 2019; Sánchez-Hernández and Mainardes, 2016).

University social responsibility is an extension of the principle of CSR in a university environment. Universities as an integral part of society cannot stay out of line with contemporary thinking on social responsibility and sustainable development (Vázquez *et al.*, 2015), and now it's required to have a social role vastly than before (Ismail and Shujaat, 2019). University social responsibility is defined as an ethical approach to develop and engage with the local and global community with the intent to sustain their social, environmental, ecological, technical, and economic development (Chen *et al.*, 2015, p.165). The extant literature in university social responsibility could be divided into two research perspectives: -

- The first research perspective focuses on the implementation techniques of university social responsibility as the techniques of social responsibility are different when dealing with the universities as opposed to commercial corporates (e.g., Dima *et al.*, 2013; Giuffré and Ratto, 2014; Kouatli, 2019). For instance, Dima *et al.* (2013) mentioned that one form of universities' social responsibility is how universities use their strategic position through the educational process and the curricula to provide the society with graduates knowledgeable and aware of the social and ethical issues.
- The second research perspective focuses on stakeholders' perception of the social role and image of the university (e.g., El-Kassar *et al.*, 2019; Ismail and Shujaat, 2019; Sánchez-Hernández and Mainardes, 2016; Vasquez *et al.*, 2015). Stakeholders' perception of the social role and image of the university is very important as they are in other corporations and are supposed to have favorable consequences on the attitudes and behaviors toward the university (Ismail and Shujaat, 2019). For instance, Vasquez *et al.* (2015) studied the influence of students' perception of the social reasonability of the university on their satisfaction and their evaluation of service quality. Drew on a sample of 400 undergraduate students of a Spanish university they find that students' overall perception of university social responsibility is positively related to the quality of service and students' satisfaction. In a similar vein, Sánchez-Hernández and Mainardes (2016) investigated the impact of students' perception of university social responsibility on students' satisfaction and students' attitudes towards the social intrapreneurship culture. Their results demonstrated that students' perception of university social responsibility is related positively to both students' satisfaction and students' attitudes towards the social intrapreneurship culture.

In organizational behavior studies, several scholars have alluded to the idea of the positive influence of CSR on organizational attractiveness (e.g., Albinger and Freeman, 2000; Turban and Greening, 1997). For example, Turban and Greening (1997) in their study of corporate social responsibility and organizational attractiveness to prospective employees find that published ratings of firms’ CSR are positively related to participants’ evaluation of firms' reputations and attractiveness as employers. Hence, the study concluded that CSR may provide a competitive advantage in enhancing organizational attractiveness and helps in attracting applicants. In a similar vein, Albinger and Freeman (2000) also have demonstrated that CSR influences job seekers’ rating of firms’ attractiveness, but only for those with high levels of job choice. Furthermore, there are well-established literature on the direct link between organizational members perceptions of CSR of the organization and organizational identification (e.g., Carmeli *et al.*, 2007; Kim *et al.*, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019) (see section 2.4.1.4 in chapter 2 for more review of previous organizational behavior studies in the linkage between CSR and organizational identification).

From the marketing perspective, numerous studies have documented the positive and direct influence of consumers’ perceptions of CSR image on their positive evaluation of the attractiveness of companies or their brands (e.g., Currás-Pérez *et al.*, 2009; Marin and Ruiz, 2007; Sen and Bhattacharya, 2001). For example, Marin and Ruiz (2007) in their study of the role of CSR in the attractiveness of the corporate identity for consumers find that CSR contributes to consumers’ perceived attractiveness of the company stronger than that of corporate ability. Also, the linkage between consumers’ perceptions of CSR and consumers’ identification with the companies or its brands well reported in the marketing literature (e.g., Lichtenstein *et al.*, 2004; Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015) (see section 3.3.1.4 in the previous chapter for more detail in the relationship between CSR and consumer identification). In sum, previous literature well documented that when a company behaves in a socially responsible manner, it is more likely to affect positively consumers’ identification and also the employees’ identification with the company directly (without the need for intermediate evaluations of its identity) and indirectly through the perceived attractiveness of the company's identity.

As mentioned previously, there is a lack of studies related to the social responsibility of universities in general (Ismail and Shujaat, 2019; Sánchez-Hernández and Mainardes, 2016; Vasquez *et al.*, 2015), and in the identification relationship with the university in particular (El-Kassar *et al.*, 2019). More specifically, the current review of university brand identification literature revealed only one study (i.e., El-Kassar *et al.*, 2019) that showed interest in studying the linkage between university social responsibility and university identification. Precisely, El-Kassar *et al.*'s study (2019) aimed to investigate the influence of university social responsibility on student-university identification and student loyalty. Drew upon a sample of 619 students from two private universities (429 students from the Lebanese American University and 190 students from the University of EAFIT in Colombia) the results reported that university social responsibility is positively related to both student- university identification and student loyalty. Additionally, the results of the mediation analysis have demonstrated the partially mediating role of university brand identification in the effect of university social responsibility on student loyalty.

Given the scarcity of studies on the relationship between university social responsibility and both university brand attractiveness and university brand identification, it seems sensible to conduct further investigation on these relationships. Thus, it is proposed that university brand attractiveness and university brand identification are influenced by university social responsibility.

Hypothesis 8: *University social responsibility is positively related to university brand attractiveness.*

Hypothesis 9: *University social responsibility is positively related to university brand identification.*

The previous discussion on the hypotheses (hypotheses 2-9) showed that university-self similarity, university prestige, university distinctiveness, and university social responsibility are expected drivers of university brand attractiveness with potential direct influence on university brand identification. Also, the discussion on hypothesis 1 showed that university brand attractiveness is supposed to be a crucial precursor to university brand identification indicating a potential positive mediating role of university brand attractiveness in these relationships. Thus, it is proposed that the university brand attractiveness positively mediates the effect of these variables on university brand identification.

> ***Hypothesis 10:*** *University brand attractiveness positively mediates the relationship between (a) university-self similarity, (b) university prestige, (c) university distinctiveness, and (d) university social responsibility and university brand identification.*

4.2.6 Student Satisfaction

Student satisfaction in the university setting is a complex and multifaceted phenomenon, and there is no consensus among researchers concerning the best way to conceptualize and measure it (Elsharnouby, 2015). Consequently, student satisfaction has been defined in several ways in the literature. For instance, Elliott and Healy, (2001, p. 2) defined student satisfaction as "a short-term attitude resulting from an evaluation of a student's educational experience". According to Palacio *et al.* (2002), student satisfaction can be considered as a response in a specific point of time resulting from the evaluation of the education services and study support offered by the university to the student. Similarly, Schlesinger *et al.* (2017, p. 3) defined student satisfaction as "an affective response, mainly resulting from student's evaluations of university teaching and study support services". In this study consistent with Elliott and Shin, (2001) and Helgesen and Nesset, (2007a) student satisfaction can be considered as "a student's subjective evaluation of the various outcomes and experiences with education and campus life".

Students' satisfaction can be considered a requisite objective for universities to survive for several reasons. Firstly, students' satisfaction affects the educational process as the level of satisfaction strongly affects the students' success, and satisfied students are more likely to achieve higher grades (Butt and Rehman, 2010; Wilkins and Balakrishnan, 2013). Secondly, students' dissatisfaction one of the main reasons why students dropped out of university (Tinto, 1975). Furthermore, students' satisfaction has a pivotal role as the main antecedent of several favorable consequences, such as students' loyalty and students' supportive behaviors (Elsharnouby, 2015). Last, but not least, students' satisfaction has become a measure used to compile rankings and league tables that can benefits universities by attracting higher quality students and staff (Wilkins and Balakrishnan, 2013).

Marketing literature well reported that consumers' satisfaction with a strong brand identity derives not only from its superior quality but also from the high position it bestows upon them, especially for conspicuous consumption (Jin *et al.*, 2016; He *et al.*, 2012). In their research, He and his colleagues (2012) argue that a strong and attractive brand identity that represents certain prestige and distinctiveness can partially fulfill consumers' key self-definitional needs of self-distinctiveness and self-enhancement needs. The study's findings supported the positive influence of consumer's perception of prestige and distinctiveness of the brand on consumer satisfaction with the brand.

In higher education, numerous studies have alluded to the idea that student satisfaction with their university is affected by their perception of the university image (e.g., Brown and Mazzarol, 2009; Gibson, 2010; Palacio *et al.*, 2002; Schlesinger *et al.*, 2017). Hence, it seems sensible to propose that the more students perceive a university's identity to be attractive and helps in satisfying their key self-definitional needs, the more they will be satisfied with the university. Thus, it is proposed that students' satisfaction with the university is influenced by university brand attractiveness (i.e., the perceived characteristics of the university's identity).

Hypothesis 11: *University brand attractiveness is positively related to student satisfaction.*

In general, individuals tend to evaluate attitude objects associated with the self positively (Van Knippenberg and Van Schie, 2000). Drawing on this argument organizational behavior literature have documented well the positive influence of organizational identification on employees' job satisfaction as through organizational identification the organization becomes in a sense part of the members' sense of self, which in turns expected to add to feelings of satisfaction with the job and the organization. (Van Dick *et al.*, 2004; Van Dick *et al.*, 2007; Van Dick *et al.*, 2008; Van Knippenberg and Van Schie, 2000) (see section 2.4.2.2 in chapter 2 for more detail on the relationship between organizational identification and job satisfaction).

Marketing literature in the linkage between consumer satisfaction and consumer identification reported mixed results in the direction of the linkage between the two constructs. Whereas several have documented the positive influence of consumer satisfaction on consumer-company/brand identification (e.g., Bhattacharya *et al.*, 1995; Boenigk and Helmig, 2013; Kuenzel and Halliday, 2008), others have reported that consumer identification with the company/brand is a precursor to consumer satisfaction (e.g., Camarero and Garrido, 2011; He and Li, 2011; He *et al.*, 2012; Martínez and Rodriguez del Bosque, 2013; Rather, 2018) (see section 3.3.3.2 for more review of marketing literature in the relationship between consumer satisfaction and consumer identification).

The current comprehensive review of university brand identification literature revealed that several studies have highlighted the idea of the linkage between satisfaction and university brand identification theoretically (Bass *et al.*, 2013) and empirically in both alumni's identification with the university (Mael and Ashforth, 1992; Sánchez-Fernández *et al.*, 2017; Schlesinger *et al.*, 2015; Stephenson and Yerger, 2014a; 2014b; 2015) and students' identification with the university (Arslan and Akkas, 2014; Cho and Yu, 2015; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018; Myers *et al.*, 2016; Trullas *et al.*, 2018; Wakefield *et al.*, 2018; Wilkins *et al.*, 2016).

Indeed, as noted previously, satisfaction is one of the constructs that has been conceptualized and operationalized in different ways among previous in the linkage between satisfaction and university identification. For example, Stephenson and Yerger (2014b, 2015) in their investigation of the relationship between satisfaction and university brand identification focused only on alumni satisfaction with student affairs and with campus resources during their studies. In their research, Arslan and Akkas (2014) and Cho and Yu (2015) have focused only on satisfaction with college life which refers to the overall or global feelings of satisfaction a student experienced with life at college. Additionally, Trullas *et al.* (2018) used the term of satisfaction but they captured it using three items scale reflect student's intention to repat the same university again, intention to recommend the university to others, and positively speak about the university, which was developed to measure the loyalty toward the university. In other words, few studies have focused on the relationship between the overall satisfaction with the university and identification with the university. More specifically three studies in the context of alumni's identification with the university (i.e., Mael and Ashforth, 1992; Sánchez-Fernández *et al.*, 2017; Schlesinger *et al.*, 2015) and four studies in the context of students' identification with the university (Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018; Myers *et al.*, 2016; Wilkins *et al.*, 2016).

Furthermore, studies that addressed the relationship between students' satisfaction and students' identification with the university have reported mixed results in both the significance and the directionality of the linkage between the two constructs. On the one hand, consistent with the argument that customer satisfaction with a particular entity enhancing customer's attachment to this entity (e.g., corporate, brand) and perceived its identity as a more salient, Arnett *et al.* (2003) and Myers *et al.* (2016) find that student satisfaction is positively related to student's identification with the university. On the other side, consistent with the idea that the higher levels of consumer identification lead to a more favorable overall judgment about the target of identification and they are more likely to remain satisfied with this entity even when their expectations are not fully met (He *et al.*, 2012; Popp and Woratschek, 2017), both of Heffernan *et al.* (2018) Wilkins *et al.* (2016) have supported the positive influence of students' identification with the university on students' satisfaction. Additionally, Fazli-Salehi *et al.* (2019) hypothesized that students' satisfaction positively affects students' identification with the university brand, but the findings did not show support for this relationship.

Given these discordant findings on the relationship between students' satisfaction and students' identification with the university, it seems of interest to further investigate this relationship. Thus, consistent with the dominant perspective in the linkage between customer identification and customer satisfaction in the marketing literature (e.g., He *et al.*, 2012; Pérez and Rodríguez del Bosque, 2015; Popp and Woratschek, 2017) and the works of Heffernan *et al.* (2018) and Wilkins *et al.* (2016). Also, considering that the current study investigates the university brand identification among the current students, the current study proposes that students' satisfaction is influenced by students' identification with the university.

Hypothesis 12: *University brand identification is positively related to student satisfaction.*

4.2.7 Student Trust

As previously said, trust exists when one partner confident in the reliability and integrity of the exchange partner, and it should be considered essential to any relational exchange (Morgan and Hunt,1994). Trust can be defined as "the willingness of one party to be vulnerable to the actions of another party based on the expectation that the other party will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer *et al.*, 1995, p. 712). In a similar vein, Rousseau *et al.* (1998, p. 395) conceptualized trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another." Accordingly, students' trust in the university is defined as the students' confidence in the university's integrity and reliability (Rojas-Méndez *et al.*, 2009). Similarly, others described students' trust as the student's confidence in the university to take suitable actions that benefit him/her (Carvalho and Mota, 2010; Ghosh *et al.*, 2001).

Research on brand identity strongly advocates that strong brand identity engenders consumer trust in the brand (e.g., Doney and Cannon, 1997; He *et al.*, 2012). In support, He *et al.* (2012) find that consumer's perception of a brand's identity in terms of its prestige and distinctiveness is positively related to consumer trust in the brand. Also, the idea that identity-self similarity due to the shared values contributes to the development of commitment and trust in a relationship has been reported in the literature (Coulter and Coulter, 2002; Morgan and Hunt, 1994).

In higher education, Schlesinger *et al.* (2017) in their research on the role of satisfaction, trust, image, and shared values in alumni' relationship with a university. Drew upon a sample of alumni from two Spanish public universities they find that alumni's perceived image of the university and shared values (the similarity in the alumni's values and that of the university) are positively related to alumni's trust in the university. Thus, it seems sensible to propose that the overall perception of a university's identity (university brand attractiveness) contributes to the development of trust in the relationship with the university.

Hypothesis 13: *University brand attractiveness is positively related to student trust.*

In organizational behavior studies, the predicting role of organizational trust in organizational identification has been reported in several studies (Campbell and Im, 2014; De Roeck and Delobbe, 2012; Edwards and Cable, 2009). Whereas marketing studies have reported discordant findings in the direction of the relationship between consumer satisfaction and consumer identification. Numerous studies have proved that customer identification provides a favorable platform for customer trust (e.g., Camarero and Garrido, 2011; He *et al.*, 2012; Rather, 2018; So *et al.*, 2013). On the other side, others have demonstrated that customer trust is related to customer identification (e.g., Becerra and Badrinarayanan, 2013; Keh and Xie, 2009; Kumar and Kaushik, 2017). Additionally, others failed in supporting the significance of the linkage between the two constructs (e.g., Martínez and Rodriguez del Bosque, 2013).

The current review of university brand identification literature revealed a scarcity of studies dealing with the relationship between the trust in the university and university identification. Specifically, three studied highlighted such a relationship (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016). Moreover, these studies have reported discordant findings in the directionality of the relationship between the two constructs. On the one hand, Nevzat *et al.* (2016) argue that students develop higher levels of trust in university when they identify with that university and find that students' identification with the university is positively related to students' trust in the university. On the other hand, Heffernan *et al.* (2018) and Myers *et al.* (2016) argue that students have a high degree of university brand identification when they have a high level of trust in their university and empirically supported the positive influence of students' satisfaction on students' identification with the university.

Given the scarcity of the evidence in the relationship between students' trust and students' identification with the university and contradictory in the findings among the available evidence in this relationship, it seems of interest to conduct further investigation on this relationship. Thus, consistent with Nevzat *et al.*'s (2016) study and the marketing argument that customer identification provides a favorable platform for customer trust (Camarero and Garrido, 2011; He *et al.*, 2012; Rather, 2018; So *et al.*, 2013), the current study proposes that students' trust in the university is influenced by students' identification with the university.

Hypothesis 14: *University brand identification is positively related to student trust.*

The positive influence of consumer satisfaction on consumer trust is well established in the literature, as the marketing literature has ample evidence in supporting this relationship (e.g., Chaudhuri and Holbrook, 2001; Delgado-Ballester and Munuera-Alemán, 2001; He *et al.*, 2012; Schirmer *et al.*, 2018). As well, the literature on higher education marketing has abundant supporting evidence for such a relationship (Rojas-Méndez *et al.*, 2009; Frasquet *et al.*, 2012; Schlesinger *et al.*, 2017) as students' overall satisfaction leads to students' trust in the university because it is indicative of the university's consistency in fulfilling its promises. Thus, it is proposed that student's trust in the university is influenced by students' satisfaction.

Hypothesis 15: *Student satisfaction is positively related to student trust.*

4.2.8 Student Loyalty

Consumer loyalty is a principal goal of relationship marketing and sometimes even equated with the relationship marketing concept itself (Hennig-Thurau *et al.*, 2002). The importance of consumer loyalty as an important source of competitive advantage and its powerful impact on firms' performance is well inherent in the marketing literature (e.g., Oliver 1999; Lam *et al.*, 2004; Zeithaml *et al.*, 1996). Traditionally, consumer loyalty research uses various behavioral measures to assess consumer loyalty like the proportion of purchase, purchase sequence, and the probability of purchase (e.g., Cunningham, 1956). This perspective had been criticized further as it does not consider the factors underlying repeat purchase (Dick and Basu, 1994). For instance, high repeat purchases may reflect situational constraints such as products stocked by retailers, in contrast, low repeat purchase may reflect different usage situations or lack of product preferences within a buying unit (Dick and Basu, 1994). Therefore, it is thought that this perspective can lead to identifying as loyalty some behaviors that have been usually described as "spurious loyalty" or even "no loyalty", which occur when the repurchase of the product takes place even if the company has a bad image in the market (Dick and Basu, 1994; Martínez and Rodriguez del Bosque, 2013).

Accordingly, literature has directed attention to the attitudinal aspect of consumer loyalty as the behavior aspect is not sufficient to explain how and why consumer loyalty is developed and/or modified (Dick and Basu, 1994; Oliver 1999). Thus, combining behavioral and attitudinal aspects is the broader vision in studying consumer loyalty in the literature (e.g., Chaudhuri and Holbrook, 2001; Dick and Basu, 1994; Oliver 1999; Zeithaml *et al.*, 1996). Oliver (1999, p. 34) defined consumer loyalty as "a deeply held commitment to rebuy or re-patronize a preferred product or service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior". This definition is widely acknowledged in consumer loyalty literature (e.g., Chaudhuri and Holbrook, 2001; Lam *et al.*, 2004; Martínez and Rodriguez del Bosque, 2013) as it combines both behavioral and attitudinal aspects of consumer loyalty. Behavioral loyalty consists of repeated purchases of the product, whereas attitudinal loyalty includes a degree of dispositional commitment in terms of some unique value associated with the product (Chaudhuri and Holbrook, 2001).

Literature noted that consumer loyalty can be manifested in a variety of behaviors, but the more common ones are recommending a brand to other consumers and repeatedly patronizing the brand. Thus, a considerable part of consumer loyalty literature has treated these two behaviors as loyalty indicators (e.g., Lam *et al.*, 2004; Martínez and Rodriguez del Bosque, 2013; Sirdeshmukh *et al.*, 2002; Zeithaml *et al.*, 1996).

In educational studies, a long research tradition exists that deals with the subject of student loyalty (usually returned to Tinto's (1975) model of student drop-out behavior). Student loyalty can be considered a key objective that most of the universities strive to realize for several reasons. Firstly, students' loyalty can influence the quality of the teaching process in several ways such as students' active participation, students' committed behaviors, and their suggestions for improvements (Balaji *et al.*, 2016; Hennig-Thurau *et al.*, 2001). Also, loyal students can support their universities through their word-of-mouth recommendation and visual promotion by the display of the university logo (Balaji *et al.*, 2016). Furthermore, for most privately-owned universities, students' loyalty through retaining students has special importance because tuition fees are the main source of income for these universities. Indeed, the advantages of students' loyalty to their universities are not limited to the time that the students spend in the university, but these advantages may endure after graduation and enters a new stage called alumni's loyalty. Loyal alumni can support their universities in several ways such as acting as advocates or ambassadors for their universities through their word-of-mouth recommendation, resilience to negative information, their donations or financial support, and continuing participation in the university activities (Hennig-Thurau *et al.*, 2001; Palmer *et al.*, 2016; Stephenson and Yerger, 2014).

Student loyalty is a multiphase concept because it is not restricted only to the period of the formal registration at the university, but also it may continue after graduation and endure to the students' lifetime (Hennig-Thurau *et al.*, 2001). Paralleling the related concept of customer loyalty, Hennig-Thurau *et al.* (2001, p. 333) argue that student loyalty encompasses an attitudinal component and a behavioral component, both of which are closely related to each other. The attitudinal component reflects a positive cognitive-emotive attitude toward the institution, whereas the behavioral component relates to student's decisions regarding mobility options (Helgesen and Nesset, 2007a; Hennig-Thurau *et al.*, 2001).

Several researchers argued that a university degree is a one-time purchase and student loyalty in the form of behavioral intention to repeat purchase (e.g., postgraduate courses) is rare (Ledden *et al.*, 2011; Eldegwy *et al.*, 2019). Therefore, these studies argue that student loyalty best manifested in students' willingness to recommend the university through word-of-mouth and to be an advocate (Boulding *et al.*, 1993; Ledden *et al.*, 2011; Eldegwy *et al.*, 2019). On the other side, others argue that student loyalty manifests itself in a variety of behaviors but the more common ones being the positive interpersonal communication with others about the university (i.e., recommend the university to others) and the intention to return to participate in other courses offered by the same university (Brown and Mazzarol, 2009; Helgesen and Nesset, 2007a; Hennig-Thurau *et al.*, 2001). Combines those two behaviors as indicators of student loyalty is the dominant perspective in studying student in the literature (e.g., Brown and Mazzarol, 2009; El-Kassar *et al.*, 2019; Helgesen and Nesset, 2007a; Marzo-Navarro *et al.*, 2005; Palmer *et al.*, 2016; Rodríguez *et al.*, 2019), which are adequate for the field of study of this work.

Interestingly, numerous studies have reported the direct effect (without the need for intermediate constructs like satisfaction and trust) of the perceived perception of a university image on the loyalty toward the university (e.g., Brown and Mazzarol, 2009; Casidy and Wymer, 2016; Helgesen and Nesset, 2007a; Schlesinger *et al.*, 2015). For example, Casidy and Wymer (2016) argue that perceived university prestige is an indicator of the degree to which a university's identity is perceived to be admirable. Drew upon a sample of 948 undergraduate students enrolled at two Australian universities they find that students' beliefs about how people outside their university judge or evaluate the status of their university-related is positively related to students' loyalty. Sung and Yang (2008) found that students' perception of university prestige is positively related to students' supportive attitudes toward the university. In their work, Schlesinger *et al.* (2017) find that university-self similarity manifested in shared values (i.e., the similarity in the alumni' values and that of the university) is positively related to alumni loyalty. Thus, it seems sensible to propose that the overall perception of a university's identity in terms of its prestige, distinctiveness, and self-similarity (i.e., university brand attractiveness) is a precursor of loyalty toward the university.

Hypothesis 16: *University brand attractiveness is positively related to student loyalty.*

Organizational behavior literature has documented well the positive influence of organizational members' identification with an organization on their loyalty and supportive behavior toward the organization (e.g., Edwards, 2005; Jones, 2010) (see section 2.4.2 in chapter two for more discussion of this literature). Also, section 3.3.2.2 in the previous chapter presented a detailed discussion on the relationship between customer identification and customer loyalty toward the target of identification in the marketing literature. As outlined numerous studies have reported well the positive influence of customer identification on customer loyalty, as the more a customer identifies with a target of identification, the more loyal that person will be to that target (e.g., Berrozpe *et al.*, 2019; Han *et al.*, 2020; Homburg *et al.*, 2009; Kuenzel and Halliday, 2010; Stokburger-Sauer *et al.*, 2012).

As Table 4.3 shows numerous studies have documented the positive influence of university brand identification on loyalty toward the university (El-Kassar *et al.*, 2019; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018; Palmer *et al.*, 2016; Rodríguez *et al.*, 2019). For example, Palmer *et al.* (2016) in their study of brand identification in higher education from the alumni's perspective, drew on data that came from 741 alumni who had previously studied at a large well-established UK university. The study's findings empirically supported the positive association between alumni's identification with the university and their loyalty toward the university. Fazli-Salehi *et al.* (2019) studied the influence of students' identification with the university brand on students' loyalty and their positive word-of-mouth about the university. The author captured student loyalty using three items that reflect the student's intention to keep on the relationship with the university, choose the same university in the future, and financial contributions. Whereas the authors addressed the positive interpersonal communication with others about the university (i.e., recommend the university to others) as another dependent construct. The study's results reported the positive influence of students' identification with the university brand on both students' loyalty and their positive word-of-mouth about the university. Thus, based on these studies it is proposed that university brand identification is a driver of loyal behaviors toward the university.

Hypothesis 17: *University brand identification is positively related to student loyalty.*

The relationship between consumer satisfaction, consumer trust, and consumer loyalty are extensively tested in marketing literature. As noted previously, marketing literature is ample with the evidence supporting the positive influence of consumer satisfaction on consumer trust (e.g., Chaudhuri and Holbrook, 2001; He *et al.*, 2012). Also, the literature has abundant supporting evidence of the strong influence of consumer satisfaction and consumer trust on consumer loyalty (e.g., Chaudhuri and Holbrook, 2001; Dick and Basu, 1994; Hennig-Thurau *et al.*, 2002; Martínez and Rodriguez del Bosque, 2013; Schirmer *et al.*, 2018), as a high level of consumer satisfaction provides the consumer with a repeated positive reinforcement. Also, consumer loyalty will be greater when consumers have perceptions of trust or confidence in the service provider.

Similarly, the literature on higher education marketing has ample evidence of the strong influence of student satisfaction on students' loyalty and supportive behaviors (e.g., Brown and Mazzarol, 2009; Clemes *et al.*, 2008; Helgesen and Nesset, 2007a, 2007b; Ledden *et al.*, 2011; Schlesinger *et al.*, 2015; Schlesinger *et al.*, 2017). For instance, Helgesen and Nesset (2007a) examined the effects of university image and students' satisfaction on students' loyalty. Their results suggest that students' satisfaction has a total effect on students' loyalty three times the effect of the university image. Similarly, Brown and Mazzarol, (2009) examined the relationships between perceived value and students' satisfaction and students' loyalty and found that students' satisfaction has a stronger significant effect on students' loyalty than the effect of perceived value. Additionally, Clemes *et al.* (2008) investigated the effect of students' satisfaction on their behavioral intention to recommend the university to others and to attend the university in the future. They find that students' satisfaction is positively related to students' favorable future behavioral intentions (i.e., intention to recommend the university and intention to attend the university in the future). Also, numerous studies had documented the positive influence of student trust on student loyalty (e.g., Carvalho and de Oliveira Mota, 2010; Hennig-Thurau *et al.*, 2001; Schlesinger *et al.*, 2017), as students loyalty to the university will be greater when students have perceptions of trust or confidence in the university. Hence, based on the previous literature in the relationship between student satisfaction, student trust, and student loyalty it is proposed that student loyalty is influenced by both student satisfaction and student trust.

Hypothesis 18: *Student satisfaction is positively related to student loyalty.*

Hypothesis 19: *Student trust is positively related to student loyalty.*

The previous discussion on the hypotheses (1, 11, 13,16) showed that university brand attractiveness is supposed to have a positive direct influence on university brand identification (hypothesis 1), student satisfaction (hypothesis 11), student trust in the university (hypothesis 13), and student loyalty (hypothesis 16). Also, the discussion on the hypotheses (12, 14, 17) showed an expected positive influence of university brand identification on student satisfaction (hypothesis 12), student trust in the university (hypothesis 14), and student loyalty (hypothesis 17), which suggests a potential positive mediating role of university brand identification in the effect of university brand attractiveness on these variables. Thus, the following hypothesis has been developed: -

Hypothesis 20: *University brand identification positively mediates the relationship between university brand attractiveness and (a)student satisfaction, (b) student trust in the university, and (c)student loyalty.*

In a similar way, the discussion on the hypotheses (12, 14, 17) highlighted the potential predicating role of university brand identification on student satisfaction (hypothesis12), student trust in the university (hypothesis14), and student loyalty (hypothesis 17). Also, the discussion on the hypotheses (18-19) showed an expected positive influence of student satisfaction (hypothesis18) and student trust in the university (hypothesis19) on student loyalty, which suggests a potential positive mediating role of these variables in the effect of university brand identification on student loyalty. Thus, the following hypothesis has been developed: -

Hypothesis 21: *The relationship between university brand identification and student loyalty is mediated by (a) student satisfaction, (b) student trust, (c) student satisfaction, and student trust sequentially.*

Table 4.4 A Summary of the Hypothesized Direct Relationships

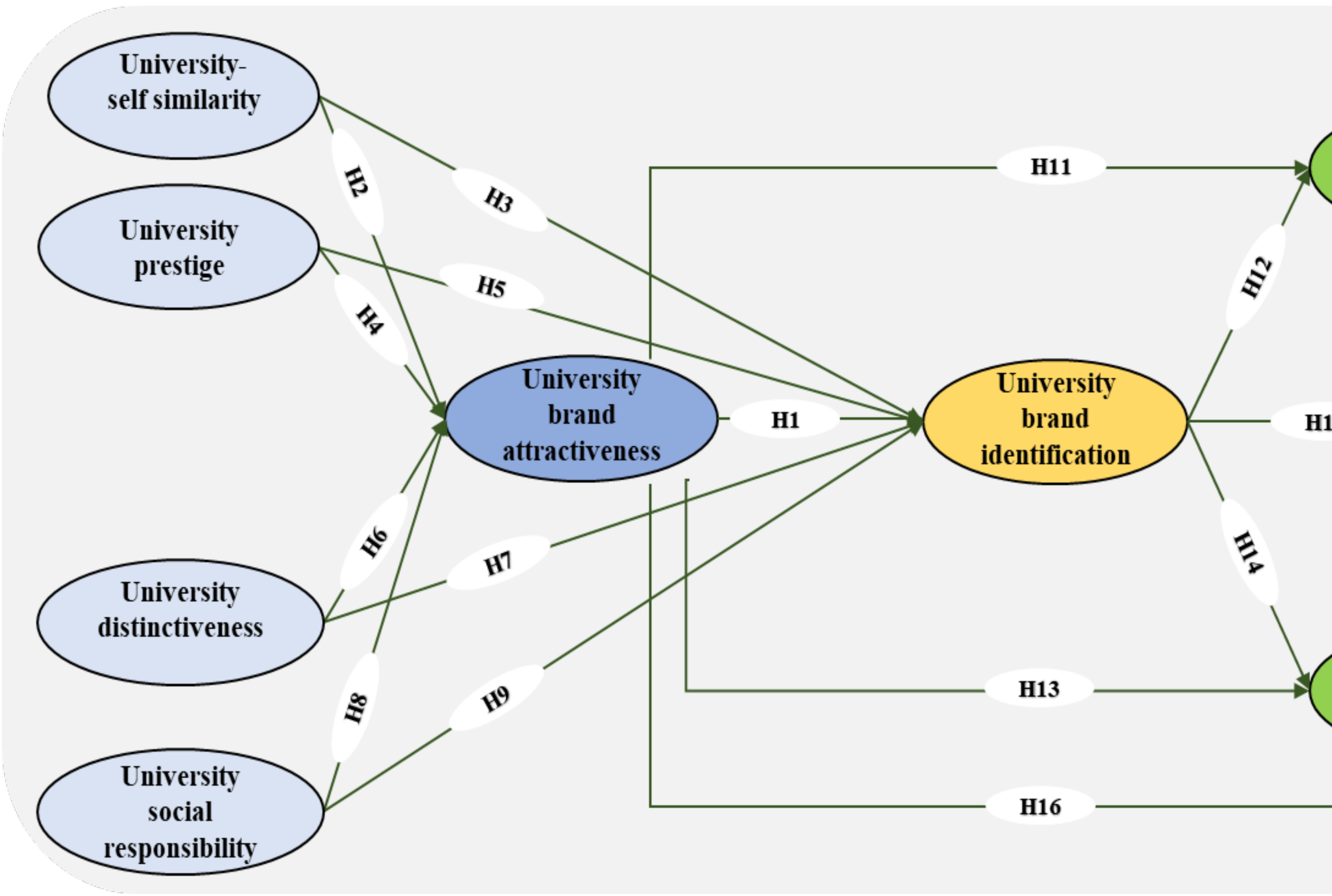
Hypothesized Direct Relationships
H1: University brand attractiveness is positively related to university brand identification.
H2: University-self similarity is positively related to university brand attractiveness.
H3: University-self similarity is positively related to university brand identification.
H4: University prestige is positively related to university brand attractiveness.
H5: University prestige is positively related to university brand identification.
H6: University distinctiveness is positively related to university brand attractiveness.
H7: University distinctiveness is positively related to university brand identification.

Hypothesized Direct Relationships
H8: University social responsibility is positively related to university brand attractiveness.
H9: University social responsibility is positively related to university brand identification.
H11: University brand attractiveness is positively related to student satisfaction.
H12: University brand identification is positively related to student satisfaction.
H13: University brand attractiveness is positively related to student trust.
H14: University brand identification is positively related to student trust.
H15: Student satisfaction is positively related to student trust.
H16: University brand attractiveness is positively related to student loyalty.
H17: University brand identification is positively related to student loyalty.
H18: Student satisfaction is positively related to student loyalty.
H19: Student trust is positively related to student loyalty.

Table 4.5 A Summary of the Hypothesized Mediation Relationships

Hypothesized Mediation Relationships
H10: University brand attractiveness mediates the relationship between (a) university-self similarity (b) university prestige (c) university distinctiveness (d) university social responsibility and university brand identification.
H20: University brand identification mediates the relationship between university brand attractiveness and (a) student satisfaction (b) student trust (c) student loyalty.
H21: The relationship between university brand identification and student loyalty mediated by (a) student satisfaction (b) student trust (c) student satisfaction and student trust sequentially.

Figure 4.3 The Conceptual Model



4.3 Conclusions

This chapter aims to present a comprehensive review of the extant literature on university brand identification and the conceptual model and hypotheses development to be empirically tested in this research. Thus, the chapter was organized into two main sections:

- Section one presented a comprehensive review of the extant literature on university brand identification to achieve three main goals. First, to provide an overview of the past research conducted on this research topic. Second, to facilitate an objective assessment of how university brand identification has been conceptualized and operationalized in the previous literature. Finally, to offer an expanded view of the previous antecedents and consequences of university brand identification that has been proposed in the previous studies, which in turn contributes to identifying and highlighting the limitations and research gaps in the extant literature. In brief, University brand identification occurs when students perceive that the university's salient and unique characteristics are self-defining and enhance his/her self-identity. Thus, identification is a process of self-definition that occurs following the cognitive link between a university's identity and the students'/alumni's identity. Hence, the more the students/alumni perceive a university's identity to be attractive, the stronger will be their identification with that university. Mael and Ashforth's scale (1992) is the most common scale to capture university brand identification in the previous studies. there is a clear research gap in the literature on the role of the cognitive factors in developing a self-identification relationship with a university. Also, on the role of crucial relational constructs such as student satisfaction and student trust in developing a self-identification relationship with a university.
- Section two presented the conceptual model and hypotheses development to be empirically tested in this research. In short, in an attempt to overcome the limitations and research gaps identified in the extant literature of university brand identification the conceptual model was developed. The model postulates that university-self similarity, university prestige, university distinctiveness, and university social

responsibility influence university brand identification directly and indirectly through university brand attractiveness. University brand identification in turn influence student loyalty directly and indirectly through student satisfaction and student trust. The model also postulates that university brand attractiveness influences student satisfaction, student trust, and student loyalty directly and indirectly through university brand identification.

CHAPTER 5

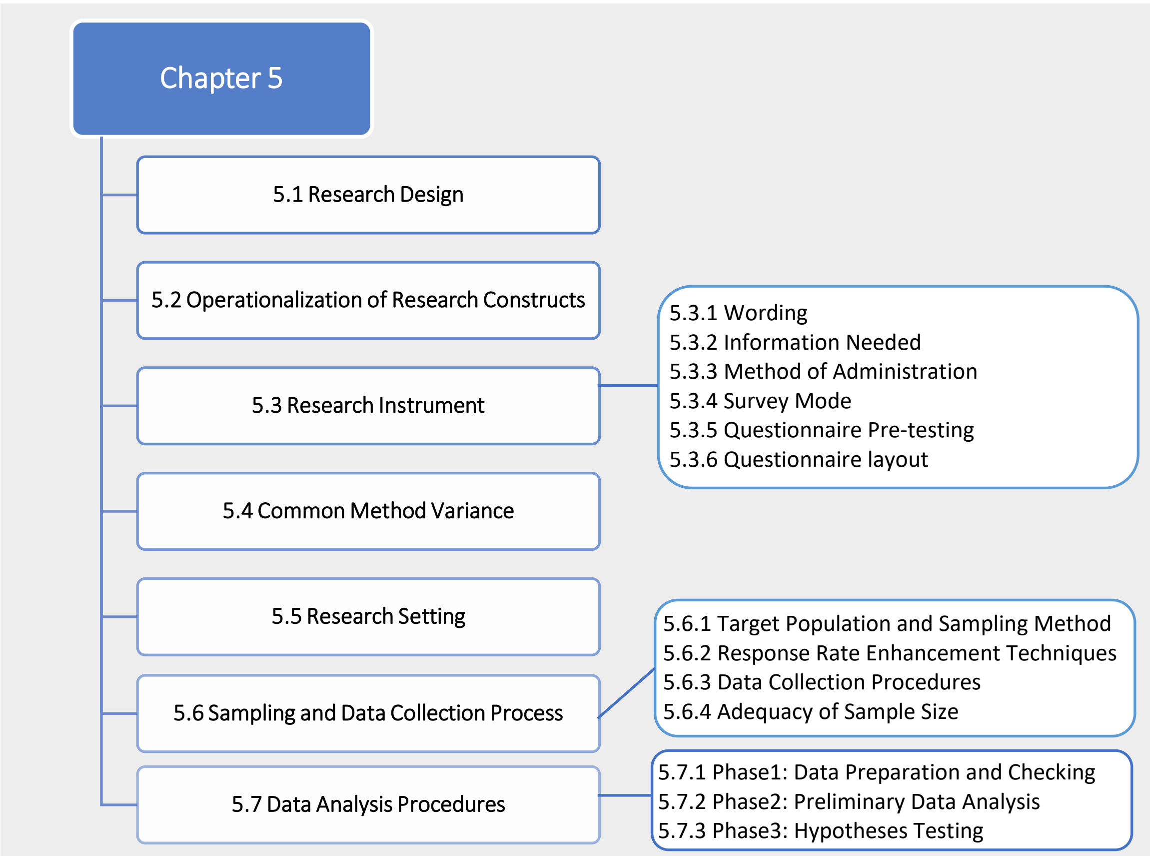
RESEARCH METHODOLOGY

- Research Design
- Operationalization of Research Constructs
- Research Instrument: The Questionnaire and its Administration
- Common Method Variance
- Research Setting
- Sampling and Data Collection Process
- Data Analysis Procedures

RESEARCH METHODOLOGY

The previous chapter outlined the conceptual model and the hypothesized relationships this chapter presents the methodology employed for this study. The chapter is introduced in seven major sections. The first section explains the research design. Section two outlines the operationalization of research constructs followed by a description of the development process of the research instrument in section three. Next, a description of procedural remedies to minimize common method bias problem and research setting are presented in sections four and five. Then, a detailed discussion of the sampling process and the data collection procedures are offered in section seven. This is followed by an explanation of the data analysis procedures in section seven. The chapter ends with summary remarks. Figure 5.1 summarizes how the chapter is structured.

Figure 5. 1 Structure of Chapter Five



5.1 Research Design

A research design is "a way a research question and objectives are operationalized into a research project" (Saunders *et al.*, 2016, p. 209). In other words, a research design is a framework or blueprint for conducting a research project that specifies the detailed procedures for collecting the data needed to achieve the research objectives (Malhotra, 2010). The research philosophy and approach to theory development influence the research design decisions which all should be guided by the research questions and objectives (Saunders *et al.*, 2016). Choosing the appropriate research design enhances the chance of conducting effective and efficient research (Malhotra, 2010).

Research designs can be broadly classified as exploratory or conclusive (Hair *et al.*, 2003; Malhotra, 2010). Exploratory research is a useful means to clarify the understanding of an issue, problem, or phenomenon, to discover its precise nature. More precisely, the exploratory research aims to gain insights and comprehension about a topic of interest by asking open questions to find out what is happening (Saunders *et al.*, 2016). Exploratory research is characterized as flexible and unstructured research, the information needed is defined only loosely, uses small and nonrepresentative samples, data analysis is mainly qualitative, and the results are tentative and need more verification (Malhotra, 2010). There are a number of ways to carry out exploratory research include a search of the literature (Saunders et al., 2016), interviewing experts on the subject of interest, conducting in-depth individual interviews, or conducting focus group interviews (Hair *et al.*, 2003; Malhotra, 2010; Saunders *et al.*, 2016). Exploratory research can be conducted on its own or in most cases followed by further exploratory or conclusive research (Malhotra, 2010).

In contrast to exploratory research, conclusive research aims to test specific hypotheses, more formal and structured than exploratory research, the information needed is well defined and more specific, need large and representative samples, data obtained are subjected to quantitative analysis, and the results are conclusive and used to guide the decision-making process (Malhotra, 2010). Conclusive research designs may be either descriptive or causal research.

Descriptive research is a pre-planned and structured approach, characterized by the prior articulation of particular research questions and hypotheses, and the information needed is clearly defined (Malhotra, 2010). The major objective of descriptive research is to describe something (e.g., attitudes, intentions, preferences, and behaviors) of a defined target population using scientific methods and procedures (Hair *et al.*, 2003). A descriptive research design is an appropriate design when the research objectives are to "test specific hypotheses and examining relationships among specified variables" (Hair *et al.*, 2003; Malhotra 2010). According to the time horizon, descriptive research designs may be either cross-sectional or longitudinal (Malhotra, 2010; Saunders *et al.*, 2016).

The cross-sectional design is the most commonly used descriptive design in marketing research. A cross-sectional design is "a snapshot" taken at a single point in time of the current situation (Saunders *et al.*, 2016). In other words, cross-sectional design involving the collection of information from any given sample of population elements only once (Malhotra, 2010). Cross-sectional may be either single cross-sectional designs (i.e., collecting the information from only one sample once) or multiple cross-sectional designs (i.e., collecting the information from two or more samples of respondents, and information from each sample is obtained only once) (Malhotra, 2010).

On the other hand, longitudinal designs seek to collect information from a fixed sample (or samples) of the population repeatedly at specified intervals over an extended period on the same variables (Malhotra, 2010). The main strength of longitudinal designs is their capacity to study change and development that take place over time which helps give an in-depth view of the situation (Saunders *et al.*, 2016). In brief, in longitudinal designs, the same people are studied over a specific period and the same variables are measured, which is useful in providing a series of pictures that give an in-depth and insightful view of the situation. The main drawback of longitudinal designs is that they depend mainly on panel samples that may not be representative of the population and suffers from response bias.

The second form of conclusive research is a causal research design where the main objective is to obtain evidence of cause-and-effect (causal) relationships among variables (Malhotra, 2010). In other words, casual research designs are particularly useful in identifying which variables are the cause (independent variables) and which variables are the effect (dependent variables) of a phenomenon (Hair *et al.*, 2003; Malhotra, 2010). Studies that establish causal relationships between variables may be termed explanatory research (Saunders *et al.*, 2016). Experiments are the main method of casual research designs where one or more independent variables can be manipulated under relatively controlled conditions (Malhotra, 2010). However, casual research designs tend to be complex, expensive, and time-consuming (Hair *et al.*, 2003).

Guided by research objectives, this study adopts the quantitative approach as the methodological choice. Then, a two-stage research design was employed to achieve the research objectives. In the first stage, an exploratory research design was employed to develop and gain initial insights and understanding of the phenomenon under investigation and to form the basis for further investigation. Precisely, this stage involved undertaking a review of the key self-identification relationship literature from the social identity perspective in organizational behavior and marketing literature followed by a comprehensive literature review of the identification studies in the university settings. This stage resulted in identifying the gaps and limitations of the current literature, in the light of these limitations the framework and the hypotheses of this study were developed. In the second stage, a conclusive descriptive research design was employed to examine the relationship between the university brand identification construct and its hypothesized antecedents and consequences. The single cross-sectional research design was adopted in this study where all the data required were collected in the same period of time using surveys. Even though ideally, it would be best to examine the proposed relationships using a longitudinal research design but given the financial and time constraints the longitudinal design was not employed.

5.2 Operationalization of Research Constructs

This section describes the scales used for measuring the constructs examined in this study. It is important to note that all construct measures employed in this research were derived from previously validated scales. The operationalization of each of the constructs including the scale items and the sources from which the scale has been adopted is explained in the following subsections.

5.2.1 University Brand Attractiveness

This construct was measured on a three-item, seven-point Likert scale ranging from 1 to 7, where 1= strongly disagree, 7= strongly agree, based on verbal protocols proposed by Bhattacharya and Sen (2003). This scale has been empirically validated in other studies in both product and service contexts (e.g., Currás-Pérez *et al.*, 2009; Elbedweihy *et al.*, 2016).

Table 5.1 Items of University Brand Attractiveness Scale

Construct Coding	Scale Items		Source
	Items	Coding	
UBA	▪ I like what this University represents (Me gusta lo que representa esta Universidad).	UBA1	Bhattacharya and Sen (2003), and Currás-Pérez *et al.* (2009)
	▪ I think that this university is an attractive university (Creo que esta universidad es una universidad atractiva).	UBA2	
	▪ I like what this university embodies (Me gusta lo que significa esta Universidad).	UBA3	

Note: Between parentheses text of the item in Spanish.

5.2.2 University-Self Similarity

The scale used to measure university-self similarity was adopted from Cable and DeRue (2002) and Schlesinger *et al.* (2017). The construct was measured using a four-item, seven-point Likert scale ranging from 1 to 7, where 1= strongly disagree, 7= strongly agree. This scale has been used previously in several studies in measuring students'/alumni' perception of the similarity between their own values and that of a university (e.g., Balaji *et al.*, 2016; Pinna *et al.*, 2018).

Table 5.2 Items of University-Self Similarity Scale

Construct Coding	Scale Items		Source
	Items	Coding	
USS	▪ The values reflected by this University are consistent with my own personal values (Los valores transmitidos por esta	USS1	

Construct Coding	Scale Items		Source
	Items	Coding	
	universidad son consistentes con mis valores personales).		Cable and DeRue (2002) and Schlesinger *et al.* (2017)
	▪ The values reflected by this University reflect the kind of person I am (Los valores transmitidos por esta Universidad reflejan el tipo de persona que soy).	USS2	
	▪ The values reflected by this University are compatible with the things I think (Los valores transmitidos por esta Universidad son compatibles con mi forma de pensar).	USS3	
	▪ The values reflected by this university are similar to my values (Los valores transmitidos por esta Universidad son similares a mis valores).	USS4	

Note: Between parentheses text of the item in Spanish.

5.2.3 University Prestige

University prestige was measured on a four-item, seven-point Likert scale ranging from 1 to 7, where 1= strongly disagree, 7= strongly agree, was adopted from Mael and Ashforth (1992) and previously used in several studies (e.g., Arnett *et al.*, 2003; Balaji *et al.*, 2016).

Table 5.3 Items of University Prestige Scale

Construct Coding	Scale Items		Source
	Items	Coding	
UPR	▪ In general, people think highly of this University (En general la gente piensa muy bien de esta Universidad).	UPR1	Mael and Ashforth (1992)
	▪ This University maintains a high standard of academic excellence (Esta Universidad mantiene un estándar superior de excelencia académica).	UPR2	

Construct Coding	Scale Items		Source
	Items	Coding	
	▪ It is considered prestigious to be a student/alumnus of this University (Ser un/a estudiante o graduado/a de esta Universidad es prestigioso).	UPR3	
	▪ People are proud when their son studying at this University (La gente está orgullosa cuando su hijo/a estudia en esta Universidad).	UPR4	

Note: Between parentheses text of the item in Spanish.

5.2.4 University Distinctiveness

The instrument used to capture university distinctiveness in this study adapted from Bhattacharya and Sen (2003). The construct was measured using a three-item, seven-point Likert scale ranging from 1 to 7, where 1= strongly disagree, 7= strongly agree. This scale has been previously validated in measuring students' perception of the distinctiveness of a university identity in several studies (e.g., Balmer *et al.*, 2020; Fazli-Salehi *et al.*, 2019).

Table 5.4 Items of University Distinctiveness Scale

Construct Coding	Scale Items		Source
	Items	Coding	
UDI	▪ This University has a distinctive identity (Esta Universidad tiene una identidad distintiva).	UDI1	Bhattacharya and Sen (2003)
	▪ This University stands out from the other competitor universities (Esta Universidad destaca frente a otras competidoras Universidades).	UDI2	
	▪ This University is a unique university (Esta Universidad es una universidad única).	UDI3	

Note: Between parentheses text of the item in Spanish.

5.2.5 University Social Responsibility

The scale used to measure university social responsibility was adapted from Currás-Pérez *et al.* (2009). The construct was measured using a four-item, seven-point Likert scale, where 1= strongly disagree, 7= strongly agree.

Table 5.5 Items of University Social Responsibility Scale

Construct Coding	Scale Items		Source
	Items	Coding	
USR	▪ This University is aware of environmental issues (Esta Universidad es consciente de las cuestiones medioambientales).	USR1	Currás-Pérez *et al.* (2009)
	▪ This University fulfills its social responsibilities (Esta Universidad cumple con sus responsabilidades sociales).	USR2	
	▪ This University gives back to society (Esta Universidad revierte en la Sociedad).	USR3	
	▪ This University acts in a socially responsible way (Esta Universidad actúa de forma socialmente responsable).	USR4	

Note: Between parentheses text of the item in Spanish.

5.2.6 University Brand Identification

Section 4.1.4 in the previous chapter presented an extended view on how university brand identification has been operationalized in prior literature. As was noted Mael and Ashforth's scale (1992) is the most widely used scale in measuring the identification in the previous studies. However, these studies varied from studies adopted the original version of the scale (i.e., six-item scale) as developed by Mael and Ashforth scale (1992) (e.g., El-Kassar *et al.*, 2019; Fazli-Salehi *et al.,* 2019; Stephenson and Yerger, 2016) to studies adopted a reduced version of the scale, for instance, Nevzat *et al.* (2016) and Rodríguez *et al.* (2019) have adopted only three items from the original version of the scale, Balmer *et al.* (2020) relied on four items from the original scale, whereas Palmer *et al.* (2016) used five-item from the original scale. In this study, the original version of the scale was adapted to capture students' perceptions of the identification with the university. Thus, this construct was measured using a six-item, seven-point Likert scale ranging from 1 to 7, where 1= strongly disagree, 7= strongly agree.

Table 5.6 Items of University Brand Identification Scale

Construct Coding	Scale Items		Source
	Items	Coding	
UBI	▪ I am very interested in what others think about this University (Estoy muy interesado/a en lo que piensan los demás respecto a esta Universidad).	UBI1	Mael and Ashforth (1992)
	▪ When I talk about this University, I usually say "we" rather than "they" (Cuando hablo de esta Universidad, normalmente digo "Nosotros" en vez de "Ellos").	UBI2	
	▪ I feel that the successes of my university are my successes (Siento que los éxitos de mi Universidad son mis éxitos).	UBI3	
	▪ When someone praises my University, I feel that as he/she praises me (Cuando alguien alaba a mi Universidad, siento como que me alaba).	UBI4	
	▪ When someone criticizes my University, it feels like a personal insult (Cuando alguien critica a mi Universidad lo siento como un insulto personal).	UBI5	
	▪ When someone criticizes my University, I feel embarrassed (Cuando alguien critica a mi Universidad me siento avergonzado/a).	UBI6	

Note: Between parentheses text of the item in Spanish.

5.2.7 Student Satisfaction

Student satisfaction was measured using a five-item, seven-point Likert scale, where 1= strongly disagree, 7= strongly agree, adapted from Fornell (1992) and Sivadas and Baker-Prewitt (2000). This scale has been used previously in measuring student satisfaction in numerous studies (e.g., Elsharnouby, 2015; Parahoo *et al.*, 2013; Schlesinger *et al.*, 2017).

Table 5.7 Items of Student Satisfaction Scale

Construct Coding	Scale Items		Source
	Items	Coding	
SAT	▪ Overall, I am very satisfied with the services provided by this University (En general estoy muy satisfecho por los servicios prestados por esta Universidad).	SAT1	Fornell (1992) and Sivadas *et al.* (2000)
	▪ This University has met my expectations (Esta Universidad ha alcanzado mis expectativas).	SAT2	
	▪ This University has helped me to fulfill my aspirations (Esta Universidad me está ayudando a cumplir mis aspiraciones).	SAT3	
	▪ This University has met my needs (Esta Universidad ha respondido a mis necesidades).	SAT4	
	▪ My decision to choose this University was correct (Mi decisión de elegir esta Universidad fue correcta).	SAT5	

Note: Between parentheses text of the item in Spanish.

5.2.8 Student Trust

The instrument employed to capture student trust was adapted from Verhoef *et al.* (2002) and has been used by Bowden (2014) to measure student trust. The construct was captured on a four-item, seven-point Likert scale, where 1= strongly disagree, 7= strongly agree.

Table 5.8 Items of Student Trust Scale

Construct Coding	Scale Items		Source
	Items	Coding	
STU	▪ I can count on this university to provide a good service (Puedo decir que esta universidad da un buen servicio).	STU1	Verhoef *et al.* (2002)
	▪ This university usually keeps the promises that it makes to me (Esta Universidad suele cumplir las promesas que hace).	STU2	
	▪ This university puts the students' interests first (Esta Universidad pone en primer lugar los intereses de los estudiantes).	STU3	
	▪ This university can be relied on to keep its promises (Se puede confiar en que esta Universidad cumple sus promesas).	STU4	

Note: Between parentheses text of the item in Spanish.

5.2.9 Student Loyalty

Student loyalty was measured on a seven-item scale with items adapted from studies by Henning-Thurau *et al.* (2001), Schlesinger *et al.* (2017), and Zeithaml *et al.* (1996). All items were measured on a seven-point Likert scale, where 1= strongly disagree, 7= strongly agree.

Table 5.9 Items of Student Loyalty Scale

Construct Coding	Scale Items		Source
	Items	Coding	
LOY	▪ If I was faced with the same choice again, I'd still choose this University (Si tuviera que volver a adoptar la decisión de elegir una universidad, volvería a elegir esta Universidad).	LOY1	Henning-Thurau *et al.* (2001), Schlesinger *et al.* (2017), and Zeithaml *et al.* (1996)
	▪ If I had to apply for advanced courses or postgraduate studies, this university would be my first choice (Si tuviera que elegir cursos avanzados o estudios de	LOY2	

Construct Coding	Scale Items		Source
	Items	Coding	
	posgrado, esta Universidad sería mi primera opción).		
	▪ After graduation, I will be interested in keeping in touch with my university (Después de graduarme, estaré interesado/a en mantenerme en contacto con mi Universidad).	LOY3	
	▪ I will recommend this University to others (Voy a recomendar mi Universidad a los demás).	LOY4	
	▪ I will recommend this university to those who ask or seek my advice (Voy a recomendar mi Universidad a los que me pidan consejo).	LOY5	
	▪ I will recommend this University to others through Social Media (e.g., Facebook, Twitter) (Voy a recomendar esta Universidad a otros a través de Social Media (por ejemplo, Facebook o Twitter).	LOY6	
	▪ I will post positive comments about this university on my social media (e.g. Facebook, Twitter) (Publicaré comentarios positivos sobre esta Universidad en mis Social Media (por ejemplo, Facebook o Twitter).	LOY7	

Note: Between parentheses text of the item in Spanish.

5.2.10 Sociodemographic and Academic Variables

Several sociodemographic and academic variables were used to create a descriptive profile of respondents. The respondents' gender, age, and nationality are the sociodemographic variables used here. Where the academic variables include the questions about the name of the university where the respondent study, academic course, and academic program in which he/she enrolled. Table 5.10 illustrates the items or categories that were used to capture the sociodemographic and academic variables.

Table 5.10 Items of the Sociodemographic and Academic Variables

Variable	Items or categories
Gender	Gender: □ Male □ Female
Nationality	Nationality: □ Spanish □ Other: ______________________
Age	Age: □ 18-21 Years old □ 22-25 Years old □ 26-30 Years old □ More than 30 Years old
University name	The name of your University: ____________________
Academic course	Academic course: □ First-year student □ Second-year student □ Third-year student □ Fourth-year student □ Erasmus exchange program student □ Other: ______________________
Academic program	Academic program: □ Business Management □ Economy □ Finance and accounting □ Marketing and Market Research □ Tourism □ Other: ______________________

5.3 Research Instrument: The Questionnaire and its Administration

Questionnaires were the main instrument of data collection for this research. The questionnaire was designed using a multistage process. The following subsections describe the questionnaire development process in detail.

5.3.1 Wording

Given that this study conducted in the Spanish university system context and some of the participants might not be proficient in English, the questionnaire was designed in Spanish. To do that, the survey was originally written in English, and then a Spanish version was created, which two Spanish and English linguists translated back into English. Based on the linguists' feedback the Spanish version was modified to ensure translation equivalence. The process was repeated until the two linguists were satisfied with a final version.

5.3.2 Information Needed

In general, two types of information were gathered through the survey. The first type is the information needed to address the research objectives (i.e., the scales of the research variables included in the study model), which were collected through close-ended questions. This data was obtained to representing the university brand identification construct and a number of constructs representing the potential consequences variables of university brand identification. The previous section provided a detailed discussion of the wording and the type of response format used for each construct.

The second type is the information collected to create a descriptive profile of respondents (classification information), which were collected through both open-ended and closed-ended questions. These questions ask about the respondent's gender, age, nationality, the university where he/she study, academic year, and academic program in which he/she enrolled. The closed-ended questions were the questions about gender and age, while the other questions were open-ended.

5.3.3 Method of Administration

Self-administered questionnaires were used for this study. The essence of self-administered questionnaires is that there is no presence for the surveyor to administer the survey, pose the questions, and record the answers like that the interviewer does in structured interviews. Thus, in this method of administration, the respondent administers the questionnaire, reads the questions, and records the answers without any assist from the surveyor (De Leeuw and Hox, 2008). Therefore, this type of administration has the advantage of overcoming the drawbacks associated with the unwanted interviewer effects like social desirability biases. But on the other hand, this type of administration requires much care in designing and implementing the survey (e.g., the wording used, layout, and visual design of the survey) to maximize the respondent's ability to comprehend all that he/she is being asked about to provide adequate answers, which make from the pretest of the survey an extremely important task for self-administered questionnaires (De Leeuw and Hox, 2008). This was taken into consideration by giving more attention to the questionnaire design and layout and the pre-testing phase.

5.3.4 Survey Mode

A mixed-mode survey design was used in this study. Single-mode surveys, regardless of mode (e.g., mail, face-to-face, web-based surveys, telephone surveys), tend not to be as effective as in years past for many, if not most, survey situations (Dillman *et al.*, 2014). Accordingly, use more than one survey mode (also referred to as a multi-mode or mixed-mode survey) to collect data are recommended to ensure that various members of the population are represented are increasingly used (Dillman *et al.*, 2014; De Leeuw *et al.*, 2008). In short, mixed-mode surveys refers to the use of two or more quantitative data collection methods in one survey and have become commonplace in the twenty-first century (De Leeuw *et al.*, 2018). Survey designers considering the use of mixed-mode surveys because it allows combining the strong points and compensates for the weaknesses of each mode. The most common motivating reasons to use mixed-mode surveys design suggested in the literature (De Leeuw, 2005; De Leeuw *et al.*, 2018; Dillman *et al.*, 2014) are the following:

- *Cost reduction:* one of the most compelling reasons for considering the use of the mixed-mode survey approach is to reduce data collection costs. Mixed design help reducing costs by starting with less costly modes and then move to more costly modes for those who do not respond initially.

- *Improve coverage of the target population and reduce coverage error:* using mixed-mode surveys in one study can reduce undercoverage of specific subgroups (e.g. elderly or lower educated).
- *Increase response rates and reduce nonresponse error:* offering respondents the mode they prefer increases the speed by which they respond and has been shown to increase response rates which in turn contributes to reducing nonresponse error.
- Reduce measurement errors: For example, mixed-mode surveys may be a useful tool to reduce social desirability biases (the respondent provides socially desirable responses for sensitive questions).
- *Improve timeliness:* mixed-mode surveys may be useful in helping to collect responses faster than relying on a single mode design.

Indeed, there are a wide variety of ways that modes can be mixed for surveys. In her seminal work on mixed-mode survey design, De Leeuw (2005) provided an integrated view in summarizing the different types of mixed-mode surveys using the timing of interacting (i.e., contact phase, response phase, and follow-up phase) as an organizing principle. Furthermore, she outlined the rationale for implementation for each mode and its effect on survey quality. Table 5.11 presents these types as suggested by De Leeuw (2005).

On the other hand, a significant drawback with mixed-mode survey design is it may lead to some kinds of errors, which may make form mixed-mode survey design ineffective tools. An important distinction is in two types of errors; (1) mode-inherent errors which are part of a mode itself and cannot be controlled or negated by clever survey design (e.g., aurally presentation vs. visually presentation, modes with surveyor involvement vs. modes without surveyor involvement, technological-based modes vs. traditional modes, etc.), (2) errors caused by the difference in the survey design across modes (e.g., the differences in the structure or even the format of the questions), which can be prevented in survey designing phase by using a unified mode design (i.e., use the same or closely similar question structures, question wordings and visual design for the survey in each mode in a mixed-mode study (De Leeuw *et al.*, 2008, 2018; Dillman *et al.*, 2014; Hox *et al.*, 2015).

Accordingly, assessing for survey mode effects is an important issue when combining more than one survey mode in one study. In their work on the design and implementation of mixed-mode surveys, De Leeuw *et al.* (2018) points out two main approaches in assessing and adjusting mode effects: (1) the first approach is using the available data for estimating and adjusting for mode effects (e.g., using demographic variables); (2) collect additional data for estimating and adjusting for mode effects (e.g., reference survey, choosing benchmark data). However, using demographic variables in assessing and adjusting for mode effects is the more common approach in the literature drawing on the mode insensitivity assumption (i.e., demographic variables are unaffected by mode effects, thus it can be a useful mean to assess for mode effects) (De Leeuw *et al.*, 2018; Dillman *et al.*, 2014).

Previous studies reported that the mode effects between self-administered paper surveys and online surveys mode are very limited because the concerns related to the presence of the surveyor (e.g., the way of surveyee response to sensitive questions, social desirability, etc.) or the change in the way questions are presented to the respondent (e.g., visually vs. aurally) are not present between these modes (Bernardo and Curtis, 2013; Hox *et al.*, 2015). In this regard, Bernardo and Curtis (2013) argue that demographic differences between online surveys and paper surveys would be more important than response mode in predicting respondents' mobility because of the concerns relating to the striking differences in the use of the internet and digital technologies between older and younger populations, or the limited access to the Internet for several social strata.

Table 5.11 Types of Mixed-Mode Systems, Rationales, and Effects on Survey

Phase	Mixed-mode system	Rationale for implementation	Effect on survey
Contact phase	Advance notification in mode different from data collection mode	▪ Correct sampling frame ▪ Raise response rate ▪ Enhance credibility/trust	▪ Reduce cov ▪ No threats collection is
	Recruitment/ Screening/ Selection in mode different from data collection mode	▪ Reduce cost ▪ Enhance efficiency ▪ Update/ expand contact information for main mode	▪ Improved ti ▪ If pure scree ▪ If screening other mode effects on m
Response phase	One sample, one time period, one questionnaire, but different sample persons, different modes	▪ Reduce costs ▪ Improve coverage ▪ Improve response	▪ Reduce cov ▪ Mode effect with subgro
	One sample, one time point, but different modes for different parts of questionnaire (for same person)	▪ Improve privacy of measurement ▪ Reduce social desirability bias	▪ Improved d sensitive qu
	One sample, multiple time points, but same persons measured with different modes at different time points	▪ Reduce costs	▪ Measureme confounding effects
	Different samples, different modes, sometimes even different times and questionnaires	▪ Comparative research ▪ Different research traditions ▪ Different coverage ▪ Different cost structures	▪ Coverage er ▪ Nonrespons ▪ Measureme ▪ Incomparab

Source: Adapted from De Leeuw (2005, p. 238).

In the educational context, prior literature on comparing online vs. paper modes on student surveys documented that mode effects between these two survey modes are very small (e.g., Carini *et al.*, 2003). Thus, combine paper and web survey modes are widely common in educational studies and also in marketing studies limited to college student populations (e.g., Carini *et al.*, 2003; McCabe *et al.*, 2006; Sax *et al.*, 2003). For instance, Carini *et al.* (2003) in their study of the mode effects on college student responses to web and paper surveys regarding 8 scales and using 58,288 responses of college students from the National Survey of Student Engagement (NSSE) in the United States. They found that the mode effects were generally small between the two surveys mode.

To conclude, this study used the mixed-mode design (i.e., mixing between paper and online surveys) to collect the data. More precisely, the self-administered paper surveys mode was used to collect the data from students at the University of Granada, while the online mode was used to collect the data from other Spanish universities, motivated by the advantages of mixed-mode surveys design in cost reduction and reduce coverage error. Although the use of a combination of paper and online surveys is common in studies limited to college student populations without fears from mode effects on the data as explained above, two procedures were undertaken in this study for more scientific rigor. First, in this stage, to avoid the concerns related to the differences in the survey design across the two modes, the two modes were designed using a unified design strategy, as the same question structures and wording were used in both modes. Additionally, the distribution of demographic variables for the respondents of each mode will be used to assess empirically for mode effects in the data analysis phase (see section 6.1.4 in the next chapter), as the more common approach for assessing for survey mode effects (De Leeuw *et al.*, 2018; Dillman *et al.*, 2014).

5.3.5 Questionnaire Pre-testing

Pretesting of the survey is an essential step in all survey modes to enhance data quality, but pretesting is enormously important for self-administered questionnaires because no interviewer is presented to clarify any ambiguity or correct mistakes or problems for the surveyee. The procedures that were undertaken to ensure translation equivalence and clarity of the language used in the survey were explained in section 5.3.1. Additionally, the questionnaire was subject to the following pre-testing procedures.

Firstly, the questionnaire was evaluated by two academics of marketing at two prestigious Egyptian and Spanish public universities, who are familiar and specialist in this research subject to assess face validity. Face validity, sometimes called content validity, is a subjective evaluation of the representativeness of the content of a scale for the measuring task at hand (Malhotra, 2010). In other words, face or content validity is concerned with examining whether the scale items effectively cover the entire domain of the construct being measured. Based firstly on the extensive literature review, and then on the two academics’ feedback, the survey was refined.

Secondly, a field test was conducted, as the revised questionnaire was pretested in a series of face-to-face in-depth interviews with 20 undergraduate students at the University of Granada to spot any ambiguous or vague in the survey. The interviewees were selected through a convenient sampling basis and were done at the beginning of October 2019. The second column of Table 5.12 illustrates the distribution of those respondents according to the sociodemographic and academic variables. The students were encouraged to give comments on the clarity of the questions and raise any problems or difficulties with respect to the questionnaire layout or its instructions. Also, the students were encouraged to provide any suggestions for improving the questionnaire design. Generally, the students included in the interviews provided positive comments towards the clarity of the questionnaire and its layout. Based on the suggestions provided, some refinement has been made as some words were rephrased to be clearer. The notable comment from respondents' comments is that some items seem similar. But given that these items are an integral part of the adopted scales and the elimination of these items would have jeopardized the content validity of the respective constructs, these items were maintained. As an attempt to overcome this problem a statement was added in the introductory section asking respondents to respond to all the questions although some items may seem similar this is deliberate and needed to achieve the study objectives.

Finally, considering that some of the scales used in this study were adapted from other marketing studies its scope of application was different from the university context, the questionnaire was pretested to empirically verify the simple reliability of the scale items before directed the questionnaire to the target sample. Thus, the final version of the questionnaire after considering the suggestions provided by the two academics and the students included in the in-depth interviews was tested with a convenience sample consists of 50 undergraduate students at the University of Granada. This pre-test was done in the second half of October 2019. Out of the 50 questionnaires collected, one questionnaire was excluded due to the incomplete data. The last column of Table 5.12 illustrates the distribution of those respondents according to the sociodemographic and academic variables. The respondents of this pre-test study were given a complete questionnaire which includes a cover page that described the main objective of the study, the time needed to complete the survey, and confidentiality statements. The version of the questionnaire used in the pre-test study is presented in Appendix A.

Internal consistency reliability is a method for assessing the internal consistency of the set of items when several items are summated in order to form a total score for the scale (Malhotra, 2010). In other words, internal consistency reliability indicates whether the measure consistently reflects the construct that it is measuring (Field, 2018). Cronbach's alpha is a widely used measure for simple reliability that is used as an indicator of scale reliability (Hair *et al.*, 2019a; Field, 2018). The value of Cronbach's alpha coefficient ranges between 0 and 1, values between 0.70 and 0.95 represent "satisfactory to good" reliability levels (Hair *et al.*, 2019a). Besides the value of Cronbach's alpha from the outputs of the reliability analysis using SPSS, Field (2018) highlighted the importance of two other outputs; (1) corrected item-total correlation, which shows the correlations between each item and the total score of the scale, in a reliable scale all items should have item-total correlations above 0.30; and (2) Cronbach's alpha if item deleted, which reflect the change in the value of Cronbach's coefficient that would be seen if an item was deleted, any item has a value under Cronbach's alpha if item deleted greater than the Cronbach's alpha of the overall scale, the deletion that item will improve the overall reliability of the scale.

The results of the simple reliability analysis for the study variables based on the data of the 49 valid responses are presented in Table 5.13. Interestingly, the results showed that the Cronbach alpha value for all constructs was above 0.70 and ranged between 0.833 to 0.955, which reflects a high level of simple reliability of all scales adopted in this study. Additionally, all values in the column of corrected item-total correlation are above 0.30, which indicates all items were correlated well with their overall scales. Also, the values in the column of Cronbach's alpha if item deleted indicate that none of the items here would improve the reliability if they were deleted except for four items USR1, UBI, SAT5, and STU1. Given that the improvement that will occur if these items are deleted in their related constructs is very slight, the decision was to retain all items, and no items were removed at this stage and proceed with data collection from the target sample.

Table 5.12 Profile of The Samples Used in the Pre-Test Study

Variable		Sample one (N=20)		Sample two (N=49)	
		Number	%	Number	%
Gender	Male	7	35 %	20	40.8%
	Female	13	65 %	29	59.2%
	Total	*20*	*100%*	*49*	*100%*
Age	18-21 years old	20	100%	43	87.8%
	22-25 years old	-	-	6	12.2%
	26-30 years old	-	-	-	-
	More than 30 years old	-	-	-	-
	Total	*20*	*100%*	*49*	*100%*
Nationality	Spanish	20	100%	48	98%
	Other	-	-	1	2%
	Total	*20*	*100%*	*49*	*100%*
Academic program	Business Management	3	15%	4	8.16%
	Economy	1	5%	3	6.12%
	Finance and accounting	2	10%	4	8.16%
	Marketing and Market Research	10	50%	31	63.3%

Variable		Sample one (N=20)		Sample two (N=49)	
		Number	%	Number	%
	Tourism	4	20%	7	14.3%
	Total	*20*	*100%*	*49*	*100%*
Academic course	First-year student	2	10%	2	4.08%
	Second-year student	5	25%	11	22.4%
	Third-year student	10	50%	32	65.3%
	Fourth-year student	3	15%	4	8.16%
	Erasmus exchange program student	-	-	2	4.08%
	Total	*20*	*100%*	*49*	*100%*

Table 5.13 Simple Reliability Analysis (Pre-Test Study)

Construct	Items	Corrected item-total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
USS	USS1	0.869	0.947	0.955
	USS2	0.882	0.943	
	USS3	0.879	0.944	
	USS4	0.931	0.928	
UPR	UPR1	0.584	0.821	0.833
	UPR2	0.687	0.778	
	UPR3	0.764	0.740	
	UPR4	0.626	0.809	
UDI	UDI1	0.693	0.838	0.857
	UDI2	0.769	0.770	
	UDI3	0.738	0.794	
USR	USR1	0.607	0.883	0.872
	USR2	0.733	0.833	
	USR3	0.794	0.808	
	USR4	0.776	0.815	
UBA	UBA1	0.808	0.839	0.895
	UBA2	0.828	0.822	
	UBA3	0.750	0.888	
UBI	UBI1	0.568	0.899	0.896
	UBI2	0.726	0.876	

Construct	Items	Corrected item-total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
	UBI3	0.829	0.859	
	UBI4	0.783	0.865	
	UBI5	0.702	0.879	
	UBI6	0.730	0.874	
SAT	SAT1	0.695	0.889	0.899
	SAT2	0.843	0.857	
	SAT3	0.821	0.863	
	SAT4	0.769	0.875	
	SAT5	0.664	0.902	
STU	STU1	0.722	0.914	0.912
	STU2	0.824	0.878	
	STU3	0.810	0.882	
	STU4	0.849	0.869	
LOY	LOY1	0.738	0.900	0.913
	LOY2	0.711	0.904	
	LOY3	0.686	0.906	
	LOY4	0.825	0.893	
	LOY5	0.835	0.890	
	LOY6	0.767	0.897	
	LOY7	0.624	0.912	

5.3.6 Questionnaire layout

The format, spacing, and order of questions are important factors that can affect the way the surveyee responds to the questionnaire, which in turn has a significant effect on the results, particularly in self-administered questionnaires (Malhotra, 2010). As suggested by Malhotra (2010) the order of questions should follow a logical order in order to minimize confusion of the respondent, and all of the questions that deal with a particular topic should be asked before beginning a new topic. In this regard, the questionnaire opened with a brief introduction to the research that explains the main purpose of the study and the importance of the respondents' participation in the research, and the approximate time needed to complete the questionnaire. Also, the recommended procedural remedies to minimize the risk of common method bias was considered in this stage (common method bias will be discussed in more details in section 5.4), thus the assurance of anonymity and confidentiality of the responses are clearly stated in the introduction whereby only aggregated data would be used, and the contact details of the researcher in case of any inquiries about the study. This was followed by the basic information about the study variables (i.e. questions directly related to the research objectives).

The sequence of these questions started by presenting the items assigned to capture the proposed antecedents was presented, then the items used to assess university brand identification were included, and lastly, questions measuring the proposed consequences variables of university brand identification were presented. The next part of the questionnaire included questions about classification information (i.e., questions related to creating a descriptive profile of respondents), these questions ask about the respondents' gender, age, nationality, the university where he/she study, academic year, and academic program in which he/she enrolled. Finally, the questionnaire was ended with a thank-you statement.

As mentioned above the mixed-mode survey design (i.e., mixing between paper and online surveys) was adopted for this study, and the unified design was followed to avoid the concerns related to the differences in the survey design across the two modes, also the order of the questions was the same for both modes. The only differences in the design between the two survey modes in this study are: (1) in the introduction of the online questionnaire (i.e., cover page) additional paragraph was added which related to the announcing for the respondents about the opportunity to enter in a prize draw (i.e., one of three €50 Amazon gift vouchers), which was used to enhance the response rate for the online survey (this point will be discussed later in this chapter see section 5.6.2); (2) considering that paper surveys were used only at the University of Granada there is no need to include a question about the name of the respondent's university, which has been included in the online version of the questionnaire; and finally, (3) along with the thank-you statement in the online survey additional option was added which ask about an email for the respondents who want to enter the prize draw process.

Besides the importance of the questionnaire layout, reproduction of the questionnaire the reproduced of the questionnaire is an important issue that can influence the results (Malhotra, 2010). For instance, if the questionnaire is introduced to the surveyee on poor-quality paper or in an unorganized appearance, the surveyee will think the scheme is unimportant and the quality of response will be unfavorably influenced (Malhotra, 2010). Thus, the questionnaire should be introduced on high-quality paper and have a professional appearance. In this regard, each paper survey was reproduced on three pages (including the cover page) with one-sided printing, on high-quality papers, and using color printing. The online version was created using the Qualtrics survey platform to administer the online questionnaire. The online version of the questionnaire was divided into four sections. The first section is the introduction page, then the questions about the basic information (i.e., the scales of the variables that incorporated in the study model) were presented in sections two and three, finally, the last section is the questions about the classification information and the thank-you statement along with the option to added an email for a prize draw purpose. Because no modifications have been made to the questionnaire that was used to empirically verify the simple reliability of the scale items as mentioned above, the same questionnaire was used in the main study.

5.4 Common Method Variance

Common method variance (also named common method bias) refers to "variance that is attributable to the measurement method rather than to the constructs the measures represent" (Podsakoff *et al.*, 2003, p. 879). Common method bias is a serious problem because it is one of the main sources of measurement error, which may provide other explanations for the observed relationships between measures of different constructs, which in turn may threaten the validity of a study's findings (Podsakoff *et al.*, 2012).

In their seminal article of a critical literature review of common method bias in behavioral research, Podsakoff *et al.* (2003) mentioned several potential sources of common method bias, for instance, predictor and criterion variables are obtained from the same respondent, or measured using the same medium. Additionally, measurement item themselves and their context within the measurement instrument could be a source of common method bias (e.g., similarities in item structure or wording that induce similar responses, the proximity of items in an instrument, etc.) (see Podsakoff *et al.*, 2003 for a good review for the potential sources of common method biases).

Given that this study relied on single-source data, as the measurers of the independents and dependents variables were obtained from the same respondent. Also, all constructs were measured using the same type of scale (i.e., Likert seven-point scale), this study is likely to be vulnerable to common method bias subject. According to Podsakoff *et al.* (2003) and Mackenzie and Podsakoff (2012), common method biases can be minimized using two fundamental ways. One way is to minimize the potential effects of method biases before the start of the data collection process through the careful design of the study's procedures which called procedural remedies; the other way is the statistical control for the effects of method biases which can be followed after the data have been collected. In this study, both procedural remedies statistical control was followed to control for common method bias. This section presents procedural remedies that were undertaken to minimize the potential effects of common method bias, whereas the statistical control for method bias will be discussed in the next chapter (see section 6.2.5). Drawing on Podsakoff *et al.* (2003) and Mackenzie and Podsakoff (2012) work on the potential sources of common method bias and recommended remedies, Table 5.14 summarizes three sources that may be a source of the problem of common method bias in this study and illustrate the procedural remedies that have been undertaken to minimize the effects of these sources.

Table 5.14 Procedural Remedies to Minimize Common Method Bias Problem

Potential sources of bias	Mechanism	Procedural remedies
Items complexity and/or ambiguity, which may result from different sources (e.g., vague concepts, double-barreled questions, the items require respondents to develop their own idiosyncratic meanings for them, etc.).	Items complexity and/or ambiguity decreases the ability of respondents to generate an accurate response, which could increase the likelihood of response bias (e.g., acquiescent, extreme, or midpoint response styles).	No vague concepts were used, double-barreled questions were avoided. In addition, during the academic pilot review and pilot study, scale items were enhanced to decrease complexity and increase item understanding.
Self-disclosure	Self-disclosure may increase the fears of the surveyees as they are subject to evaluation, which in turn makes them are more likely to edit their responses to be more socially desirable, lenient, acquiescent, and consistent with how they think the surveyor wants them to respond regardless of their real answer.	Anonymity and confidentiality of the responses were assured and clearly stated on the cover page of the survey. Additionally, respondents were not required to provide any information that may lead to self-disclosure except for writing an email for those who want to participate in the prize draw process for the online respondents.
Low self-efficacy to provide a correct answer	Similar to self-disclosure low efficacy may also increase the likelihood that respondents choose a midpoint response style because they lack confidence in their responses.	Emphasizing to respondents on the cover page in both surveys (paper and online surveys) that there were no right or wrong answers to the questions, and their being honest and frankly as possible in their answers was what mattered most.

Source: partly based on Podsakoff *et al.* (2003) and Mackenzie and Podsakoff (2012).

5.5 Research Setting

With the arrival of the 21st century, the intense and inevitable processes of globalization, digitization, technological disruption, and the appearance of social challenges that require attention on a global scale (climate change, migration, sustainable development goals, etc.), higher education institutions they have become the center of attention in the search for analysis and solutions to such complex problems. In the words of the president of Harvard University, Drew Gilpin Faust, "Never before, in the history of mankind, has the future of people depended, so decisively, on education. Never before has academic research been in such demand to solve such complex problems. Never before, the progress and prosperity of societies have depended so much on the ideas that emerge from the universities" (Informe Fundación Conocimiento y Desarrollo (CYD), 2018). Thus, higher education institutions face profound transformations, both in terms of their mission and their functions and objectives.

The Spanish University System underwent major transformations over the last decades. For instance, the promulgation of the Organic Law of Universities (LOU) in 2001 and its amendment (LOMLOU) in 2007 represented a clear attempt to modernize the university system, both in terms of the legal framework and redefinition and incorporation of new missions, functions and objectives (for example, evaluation, openness to society, continuous training, innovation, employability, social profitability, etc.) (CYD, 2018). Luque-Martínez and Del Barrio-García (2005) synthesize the main changes and transformations that have occurred in the Spanish University System into five groups:

1. **Demographic changes:** in recent years there has been a reduction in the young population of university age given the low birth rate registered since the eighties of the last century. Likewise, the percentage of female presence in universities and of students over 25 years of age has increased. In support, according to the latest yearbook of data and figures of the Spanish university system corresponding to the 2019/2020 academic year *"Datos y cifras del Sistema Universitario Español, Publicación 2019-2020"* issued by the Spanish Ministry of Education, Culture and Sport, the number of undergraduates students enrolled in the Spanish university system in the 2003/2004 academic year were 1.487.279 students

compared to 1.293.892 students in the 2018/2019 academic year, which indicates that the young population of the Spanish university system was decreased with 13% in the last fifteen years.

2. **Changes in the offer and the competition:** the last years witnessed a continuous diversification and increase in university degrees. Also increasing in the intensity of competition between public and private universities, reinforced by the incipient internationalization of the university environment. In support, the number of universities that made up the Spanish university system in the 2010/2011 academic year was 78 universities (50 public and 28 private) compared to 83 universities (50 public and 33 private) in the 2018/2019 academic year, also, the number of Bachelor's degrees taught in the 2010/2011 academic year was 2338 degrees which increased to 2,920 degrees in the 2018/19 academic year (Spanish Ministry of Education, Culture and Sport, 2010, 2020). This indicates that the past eight years have witnessed the emergence of 5 new private universities and increasing in the number of bachelor's degrees with 24.9%.
3. **Institutional changes:** the organizational structure and functioning of all the Spanish universities have been considerably modified during the past two decades derived by forces of globalization and internationalization. For instance, the creation of the European Higher Education Area (EHEA) refers to "a group of countries that cooperate to achieve comparable and compatible higher education systems throughout Europe" has had an important impact on teaching methods as well as in the restructuring of the academic offer.
4. **Economic changes:** In recent years, there has been an impulse to shift to the so-called knowledge society, which has led to an increase in the interest with universities as an engine of knowledge and as a notable part of the construction of the productive fabric and human capital of society. Thus, there was an increase in the GDP allocated to research and development. However recent years had witnessed a huge cut in public funding for research and higher education, as well as the hiring of teachers and staff in general, derived by the international economic recession of 2009 (CYD, 2018).
5. **Social changes:** recent years have witnessed an increase in the importance of the social role of universities. Also, universities have become a space where a multitude of sports or cultural activities are

carried out. In certain cities, the university institution is the main engine of social dynamization.

In addition to the transformations that have occurred in the Spanish University System, it still faces several weaknesses and challenges. In the report of CYD for the year 2018, José María Sanz Martínez, the ex-president of Autonomous University of Madrid (2009-2017) synthesizes ten challenges of the Spanish University System to improve its international competitiveness when it comes to attracting talent and economic resources. Although they are all interrelated and, in general, are dependent on each other, it should be noted that the first four have to do with the legal framework in which university activities take place. The rest are aspects in which the Spanish University System has made significant progress but needs to continue improving.

1. **Deregulate and make the legal framework more flexible:** as a generic measure, significant deregulation, flexibility, and certain specificity of the legal framework in which higher education and research activities are carried out should be carried out. In general, excessive interventionism leads to the homogenization of the system. On the contrary, greater autonomy would encourage differentiation. Thus, the Spanish university system is in a need of a new university law that includes generous conditions of autonomy and flexibility based on trust in the system and that promotes differentiation between universities.
2. **Coordinate sector policies and public administrations:** the policies of the public administrations should be better coordinated with each other, with the rest of the sectoral policies, and with those of the European Union.
3. **Improve inefficient organizational structures:** Improve the efficiency of university structures through internal coordination processes and with other higher education institutions. Achieve quality critical mass through aggregation processes with other universities, faculties, departments, etc. Sharing infrastructure, promoting joint titles, etc. Promote greater professionalization and specialization of profiles in line with the new functions.
4. **Improve governance, transparency, and financing:** governance should depend on the source of funding, the mission and objectives of the university, and the consequent requirement of effectiveness in its implementation.

5. **Develop specialization and diversification:** greater academic and organizational autonomy would allow the development of different University profiles due to the content of the studies, the adaptation to social demands and employment, due to the application of new educational methodologies, due to specialization in undergraduate, postgraduate or continuing training, and even in research and innovation.
6. **Improve the teaching model to promote employability, entrepreneurship, and innovation:** develop a more innovative teaching model that prepares graduates for highly qualified employment by improving skills and competencies for the job market. Strengthen curricular programs in collaboration with companies and employers.
7. **Increase competitiveness at the international level:** promote a strategy at the national level to improve the reputation of Spanish universities. To develop a culture of institutional internationalization based on internationally proven quality and a significant presence of professors, researchers, and students from all over the world. Increase the international mobility of university students and staff.
8. **Improve the relevance and social profitability of research, innovation, and knowledge transfer:** to carry out competitive research and international leadership, it is necessary to promote aggregations with sufficient critical mass, competitive infrastructures, and flexible and agile management structures. Increase interdisciplinarity to better respond to major social problems.
9. **Encourage the selection, attraction, and retention of talent:** it is necessary to promote talent recruitment and retention programs, break with the current remuneration and contractual rigidity, and encourage the intensification of activities. Promote an attractive and stable work environment and a transparent professional career. Make hiring more flexible according to the strategic interest of the university, allowing diversification of recruitment profiles (for example, innovators, educational and technological leaders, entrepreneurs, etc.).
10. **Deepen equity, social progress, and inclusion:** the consideration of tertiary education as a public service is critical in establishing the mission, goals, and objectives of the Spanish University System. Ensure access to all people with sufficient academic achievement, regardless of their income level and their functional diversity.

All these changes and challenges have given rise to debate and reflection about the functioning and role of the university that leads to the need to propose new strategies, analysis, and management of higher education institutions. Therefore, the Spanish University System has become a fertile field for research from different disciplines including marketing. The main aim of marketing studies that carry on the Spanish university system is to help Spanish universities to build long term relationships with their stakeholders (e.g., students, graduates, staff, etc.) as an important strategy in facing the current challenges and enhancing competitiveness (e.g., Doña-Toledo *et al.*, 2017; Doña-Toledo and Luque-Martínez, 2020; Jiménez-Castillo *et al.,* 2013; Luque-Martínez and Del Barrio-García, 2009; Luque-Martínez and Doña-Toledo, 2019; Rejón-Guardia *et al.*, 2020; Sánchez-Fernández *et al.*, 2017; Trullas *et al.*, 2018). Considering these studies, the Spanish University System was chosen as the research context to achieve the objectives of this study.

5.6 Sampling and Data Collection Process

The following subsections address issues related to the target population and sampling method, response rate enhancement techniques, data collection procedures, and sample size adequacy.

5.6.1 Target Population and Sampling Method

The total number of students enrolled in Spanish universities during the 2018-2019 academic year was 1,595,039 students the vast majority (81.1%) were undergraduate students. Of the students enrolled in the 2018/2019 academic year, 54.8% of the total were women, of which 55.2% were enrolled in bachelor's degrees, 54.4% in master's degrees, and 50.1% in Doctorates. The net enrollment rate in Spanish University Education, which measures the percentage of the population between 18 and 24 years of age that is enrolled in bachelor's or master's degrees, remains stable at around 31%. Table 5.15 illustrates the number of students enrolled in Spanish universities during the 2018/2019 academic year by the level of study along with the percentage of females at each level. Whereas Figure 5.2 exhibits the evolution of the net enrollment rate in the Spanish university education of the population aged 18 to 24 in the period from 2010/2012- 2018/2019, which remains stable at around 31% during the past five years.

Considering that undergraduate students represent the vast majority of the population of the Spanish university system. All undergraduate students enrolled in the Spanish university system by the time the empirical study was conducted, represent the population of interest in this study.

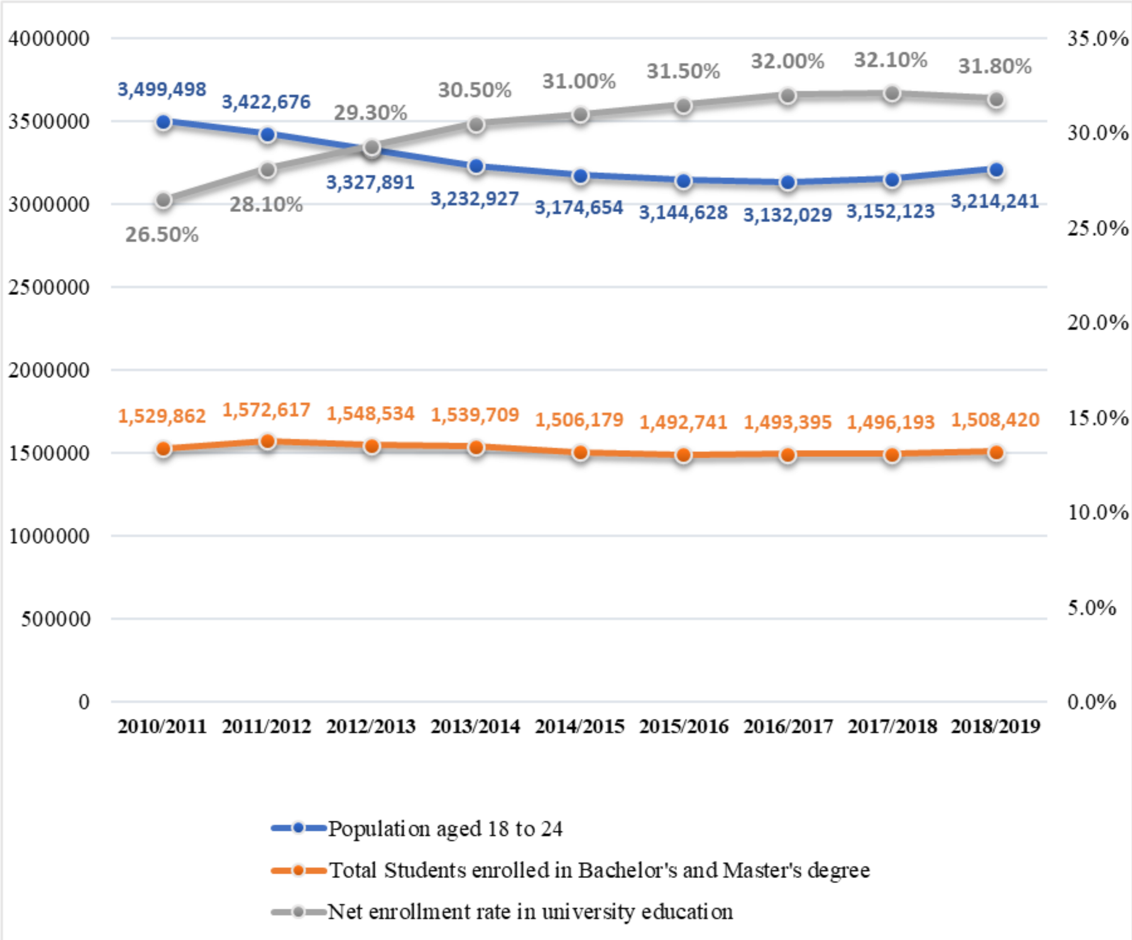
Students of social and legal sciences account for nearly half of the Spanish undergraduate students' population. Table 5.16 summarizes the evolution of the Spanish undergraduate students' population between 2003/2004-2018/2019 by the field of study. As Table 5.16 shows, the population of Spanish undergraduate students witnessed major changes in the recent past. As mentioned above this population was decreased by 13% in the last fifteen years. Also, this population witnessed several changes in the proportions of students by the field of study. For instance, the number of enrolments in the field of Engineering and architecture in the academic course of 2003/20034 was 26.5%, this percentage was declined to 17.8% in the academic course of 2017/2018. On the other side, the number of enrolments in the field of health sciences in the academic course of 2003/2004 was 7.8% this percentage was increased to 19.0% in the academic course of 2018/2019. However, the number of enrolments in the field of social and legal sciences still stable around 47% of the overall population during this period.

Table 5.15 Number of Students Enrolled in The Spanish University System During 2018/2019 Academic Year

	Students enrolled during 2018-2019 academic year*	
	Total	% of female
Total students	**1,595,039**	**54.8%**
Undergraduate students	1,293,892	55.2%
Master's students	214,528	54.4%
Doctoral students	86,619	50.1%

Source: Spanish Ministry of Education, Culture, and Sport (2020)

Figure 5.2 The Evolution of The Net Enrollment Rate in The Spanish University Education of The Population Aged 18 To 24 From 2010/2012-2018/2019



Source: Spanish Ministry of Education, Culture, and Sport (2020)

Considering that students of the social and legal sciences represent the biggest segment of the Spanish undergraduate students' population and the objectives of this study were not developed by scientific areas, as the main objective of this study is to develop a comprehensive framework for the antecedents and consequences of university brand identification, the sample of this study could be achieved from the students of the social and legal sciences. Achieve homogeneity in the selected samples is essential to improve the accuracy and quality of the resultant data (Bornstein *et al.*, 2013; Malhotra, 2010). Therefore, it is necessary for the proposed sample that the participants come from the same area of the social and legal sciences field. In this regard and like previous studies of this type of research that drew on samples came only from the students of faculties of business and management without any concerns of any detrimental effects on the generalizability of the findings (e.g., Balaji *et al.*, 2016;

Balmer *et al.*, 2020; Pinna *et al.*, 2018; Wilkins *et al.*, 2016), the final sample of this study could be achieved from the students of the faculties of business and management.

Regarding the sampling method that was adopted in this study, given that a predetermined sampling frame is not available, this study rules out the possibility of probability sampling techniques. Mainly, non-probability samples require less time to gather data and are less costly than probability samples.

A judgmental convenience sampling technique was adopted in this study to collect responses from students. For this purpose and motivated by achieving homogeneity in the sample, the sample was drawn from undergraduate students of the Spanish faculties of business and economics. In this regard, the students of the Spanish faculties of business and economics that are members of the Spanish conference of deans of economy and business "Conferencia Española de Decanas y Decanos de Economía y Empresa (CONFEDE)" were selected to respond to the questionnaire. The Spanish conference of deans of economy and business, was constituted in November 1998, is formed as ex officio members of all the deans of the Spanish faculties of business and economics authorized to issue and impart official Graduate (formerly Bachelor) degrees in Economics and Business Administration and Management, as well as all those undergraduate degrees that have emerged as a transformation of such studies into the so-called European Higher Education Area, and its different variants in names and specialization profiles within the economic-business field.

Table 5.16 The Evolution of the Spanish Undergraduate Students' population by the Field of

	Academic course				
	2003/2004	2013/2014	2017/2018	2018/2019	Annual 2018/2019 2017/201
Total enrolments	**1.487.279**	**1.416.827**	**1.287.791**	**1.293.892**	**0.5%**
Social and legal sciences	727.297	665.236	603.199	601.764	-0.2%
Engineering and architecture	394.705	302.826	231.331	229.676	-0.7%
Arts and humanities	140.997	135.315	129.930	133.581	2.8%
Health sciences	115.502	231.664	242.560	245.925	1.4%
Sciences	108.778	81.786	80.771	82.946	2.7%

Source: Spanish Ministry of Education, Culture, and Sport (2020)

5.6.2 Response Rate Enhancement Techniques

One of the major problems of the survey method is the low response rate which can have several impacts on both the quantity and quality of the data obtained (Diamantopoulos and Schlegelmilch, 1996). Using incentives to encourage surveyees to respond to surveys proved to be an effective tool to enhance response rates in the web surveys mode just as in other survey modes (e.g., mail surveys, telephone surveys, etc.) (e.g., Jobber and O'Reilly, 1998; Manfreda and Vehovar, 2008). Incentives are a very broad variable because it can represent in different types, such as simple payments, products, theatre tickets, or even the survey results can be offered as an incentive. Moreover, given the special nature of the internet environment, several virtual incentives are available which can be in the form of monetary incentives (e.g., depositing money on Internet accounts, gift vouchers, etc.) or non-monetary (e.g., free access to software, a donation to charity, free online time, etc.). Additionally, incentives can vary from an only chance for the respondent on winning through a random draw to incentives offered to each respondent, or various combinations of both. The type and value of incentives depending on the population targeted and also the type of information in question, for instance, a Mobile recharge card or Amazon gift voucher may be a good mean to motivate students, whereas experienced professionals will need a more valuable incentive (Manfreda and Vehovar, 2008).

Since prior studies reported that monetary incentives are more likely to increase the response rate (e.g., Jobber and O'Reilly, 1998; Manfreda and Vehovar, 2008), in this study incentives were used for online survey mode only. Specifically, in this study monetary incentives were in the form of a prize draw (one of three €50 Amazon gift vouchers) to encourage students to participate in the survey.

However, using incentives in surveys in general and on web surveys mode in particular, maybe a source of several problems, for instance, some participants will try to fill the survey several times, or make the final sample may be biased to certain types of people (e.g., less income, younger, etc.), which in turn may affect negatively on the quality of data and the research findings (Manfreda and Vehovar, 2008). In this study to avoid the problem of receiving more than one response from the same respondent, the option of allowing the respondent to submit only one response had been activated during the development of the survey on the online platform.

Unfortunately, no strong predictors available in this study to assess empirically for the monetary incentives effects on online responses. For instance, the categorization of the population based on the level of income is not applicable. But given that the monetary incentives used in this study are the only chance for the respondent on winning (one of three €50 Amazon gift vouchers) which is not a big incentive to a source of bias. Also, previous studies used such incentives didn't show any concern to the effects of the incentives on the reliability of the results (e.g., Myers *et al.*, 2016; Yao *et al.*, 2019), the monetary incentives used in this study are not likely to be a source of concern to the reliability of the online responses.

5.6.3 Data Collection Procedures

As was declared above, self-administered questionnaires with its more two common modes (i.e., paper surveys and online surveys) were used to collect the data for this study. The data collection process was started at the beginning of November 2019 using the two survey modes. Regarding paper surveys, a total number of 250 printed questionnaires were distributed to undergraduate students during their classes in the Faculty of Business and Management at the University of Granada with the help of the researcher's supervisor and the collaboration of several professors at the faculty. All of the distributed questionnaires were collected back, indicating a response rate of 100% to paper surveys as all students volunteered to participate in the survey. The initial check of these responses revealed 10 cases have more than 15% missing data, thus these cases were eliminated yielding a completion rate of 96% (missing data analysis will discuss in more detail in the next chapter).

The online version of the survey was created using the "Qualtrics survey platform". Online survey mode was used because it can be regarded as a good means to reach students in different universities to reduce the risk of undercoverage error. But the real challenge is how to reach students in the different universities that are members of the Spanish conference of deans of economy and business in the absence of a sampling frame, and how to communicate with them in a formal way to motivate them to participate in the questionnaire. To overcome this challenge an email was sent through the dean's team of the Faculty of Business and Management at the University of Granada to all deans or directors that are members of this list of this conference. In September 2019 the list of the membership of this conference was made of 85 deans/ directors of Spanish faculties of business and economics. The email included an introduction about the study and its importance and asks for their cooperation to direct the survey link to the undergraduate students in their faculties. The questionnaire was uploaded onto the platform at the beginning of November 2019 and remained available to receive responses until the 26th of January 2020. A total of 570 responses were received, represent seven Spanish universities. Table 5.17 shows the detail of the responses received from each university. It is worth noting that almost 74.5% of the responses came from two universities (i.e., University of Oviedo and University of Pública de Navarra). Specifically, of the 570 responses, 300 (52.6%) responses were received from the students at the University of Oviedo followed by 125 (21.9%) responses came from the students at the University of Pública de Navarra.

Table 5.17 Distribution of Online Responses by University

	Frequency	Percent %
University of Oviedo	300	52.6%
University of Pública de Navarra	125	21.9%
University of Las Palmas de Gran Canaria	76	13.3%
University of Santiago de Compostela	41	7.2%
University of Málaga	14	2.5%
University of Córdoba	9	1.6%
University of Lleida	5	0.9%
Total	***570***	***100%***

Whereas the aggregate responses that came from the University of Málaga, University of Córdoba, and the University of Lleida account for only 5 % of the total online responses. Precisely, of the 570 responses, 14 (2.5%) responses received from the students of the University of Málaga, 9 (1.6%) responses came from the students of the University of Lleida, and only 5 (0.9%) responses received from the students of the University of Córdoba. Given that the number of responses from each of these universities is very low and did not match the recommended minimum size for the subgroups sample (N = 30) (e.g., Hair *et al.*, 2020), these responses were excluded from the data set. Accordingly, a total of 542 of the online responses were available for the data analysis procedures.

5.6.4 Adequacy of Sample Size

Structural Equation Modelling (SEM) is often thought to require a larger sample size relative to other multivariate approaches (Hair *et al.*, 2019a). A number of rules have been proposed for determining the adequate sample sizes required for SEM. Bagozzi and Yi (1988) suggested that sample sizes of 100 observations will generally not pose problems in most instances, but sample sizes of 150-200 or more observations are advisable. In a similar vein, Kline (2010) noted that the adequate sample size where SEM is used is around 200 cases. Hair *et al.* (2019a) suggested that the minimum sample sizes for conduct SEM offered based on the number of constructs, indicators, and communalities. For instance, the minimum sample size of 100 observations are recommended "for models with five or fewer constructs, each with more than three items (observed variables), and with high item communalities (0.6 or higher)", whereas the recommended minimum sample size for the complex models with a large number of constructs some with lower communalities, and/or having fewer than three observed variables.

One of the main advantages of the partial least squares structural equation modeling (PLS-SEM) approach is it works efficiently with small sample sizes and complex models (Hair *et al.*, 2017a, 2019a). As a rule-of-thumb to determine the minimum sample size in a PLS-SEM analysis Hair *et al.* (2017a) suggested that the minimum sample size should be 10 times the largest number of structural paths directed at a particular construct in the structural model. Additionally, they recommended using the more elaborate methods that take statistical power and effect sizes into account like Cohen's (1992) method or G*Power program. In this study, the maximum number of arrows pointing at a particular latent variable is 5 (i.e., SUI construct). Thus, according to Hair *et al.*'s (2017a) 10 times rule, 50 observations are the minimum sample size needed to estimate the PLS path model of the study model. Alternatively, following Cohen's (1992) method with 5 arrows pointing at a particular latent variable and assuming a five percent significance level, as well as a minimum R^2 of 0.25, 45 observations are needed to reliably estimate the model. Nevertheless, in line with previous studies (e.g., Balmer *et al.*, 2020; Cho and Yu, 2015; Nevzat *et al.*, 2016) and considering the complexity of the study model the target sample size was 250 observations.

Upon completion of data collection, a Post-Hoc analysis using G*Power software was used to assess sample size adequacy. As mentioned above the maximum number of arrows pointing at a construct in a PLS path model used is 5 (i.e., SUI). The results from the G*Power Post-Hoc analysis suggested that with effect size f^2 of 0.15, the α error probability of 0.95, and 5 predictors, the size of the paper responses are sufficient to result in a statistical power 0.999, while the size of the online responses are sufficient to result in a statistical power 1 (see Appendix B for the figures of the outputs of Post-Hoc analysis using G*Power software for paper and online responses).

5.7 Data Analysis Procedures

This section outlines data analysis procedures that were undertaken to evaluate the conceptual model of the study and test the hypothesized direct and indirect relationships. These procedures can be grouped under three main phases of analysis procedures as presented in Figure 5.3. The statistical technique performed in the first two phases was conducted using "Statistical Package for the Social Sciences" (SPSS) software version 26.0, while the third phase was conducted using SmartPLS version 3.2.9 (Ringle *et al.*, 2015) as will be explained in the following subsections.

5.7.1 Data Preparation and Checking

The first phase to proceed with data analysis procedures is data preparation and checking. This phase started with data coding and testing for non-response bias. Then data cleaning and filtration, testing for the effects of the monetary incentives, testing for survey mode effects were presented.

5.7.2 Preliminary Data Analysis

In this phase, the frequency statistics of sample characteristics and profile was first presented. Then, the descriptive analysis of the study variables was performed to obtain the descriptive statistics of the study variables (mean, standard deviation, and coefficient of variation). Next, testing for multicollinearity, assessing for the common method variance, and tests of normality distribution of data were presented. Finally, this phase was concluded with an assessment of the reliability of the scales using the reliability analysis procedure in SPSS.

5.7.3 Hypothesis Testing

The last phase of data analysis procedures is hypothesis testing. PLS-SEM was used for inferential data analysis and a three-stage process was followed to evaluate the conceptual model and test the hypothesized direct and indirect relationships will be presented below.

Figure 5.3 Summary of Data Analysis Procedures

Phase 1: Data Preparation and Checking

Data coding, testing for Non-response bias, data cleaning and filtration, testing for the effects of the monetary incentives, testing for survey mode effects.

Phase 2: Preliminary Data Analysis

Sample characteristics and profile, descriptive analysis of the study variables, testing for multicollinearity, assessing for common method variance, tests of normality distribution of data, and reliability assessment.

Phase 3: Hypotheses Testing

Satge 1. Assessment of the measurement model: Indicator loadings and reliability, the construct's internal consistency reliability, convergent validity, validity.
Satge 2. Assessment of the structural model: Collinearity assessment, evaluate the size and significance of path coefficients, coefficient of determinations (R^2), effect Size (f^2), predictive Relevance (Q^2), PLSpredict.
Satge 3. Advanced analyses: Mediation analysis, observed heterogeneity (PLS-MGA), unobserved heterogeneity (FIMIX-PLS).

5.7.3.1 Structural Equation Modelling

Structural Equation Modelling (SEM) is a family of statistical models that seek to explain the relationships among multiple variables. SEM's foundation lies in two familiar multivariate techniques: factor analysis and multiple regression analysis, thus SEM can be thought of as a unique combination of interdependence and dependence multivariate techniques (Hair *et al.*, 2019a). SEM models are preferred than traditional regression models in that it allows researchers: (1) simultaneous estimation of multiple and interrelated dependence relationships, more precisely, in traditional regression models relationships for each dependent variable can be expressed in a regression equation, but in many cases, a variable that acts as the dependent variable in one relationship can be the independent variable in another relationship in the same model, SEM allows for all the relationships/equations to be estimated simultaneously, "(2) defining a theoretical model to explain the entire set of relationships, and (3) represent unobserved concepts in these relationships and account for measurement error in the estimation process" (Hair *et al.*, 2019a, p. 607). In summary, SEM has become a quasi-standard tool for analyzing complex inter-relationships between observed and latent variables (Sarstedt and Hwang, 2020).

Two conceptually different approaches to SEM have been proposed: covariance-based structural equation modeling (CB-SEM) vs. partial least squares structural equation modeling (PLS-SEM) (PLS-SEM, also referred to as variance-based SEM) (Hair *et al.*, 2017b; 2020). CB-SEM is factor-based SEM approximates latent variables by common factors and the primary statistical objective is confirming theory by estimating a new covariance matrix that is not significantly different from the original observed covariance matrix, whereas PLS-SEM is component-based SEM approximates latent variables as weighted composites of observed variables and the primary statistical objective here is to maximize the variance explained in the dependent variable(s) (Hair *et al.*, 2017a, 2019a; Sarstedt and Hwang, 2020).

The two approaches emerged nearly at the same time, CB-SEM emerged at the beginning of the 1980s included a process for assessing measurement model quality referred to as confirmatory factor analysis, whereas PLS-SEM was developed in 1982 as an alternative approach with much greater flexibility compared to CB-SEM (Hair *et al.*, 2020). CB-SEM became the dominant SEM approach in the 1990s and remained so well after 2000 due to the early availability of user-friendly software. On the other hand, the applications of PLS-SEM began increasing around 2005, with the availability of PLS software like PLS Graph and SmartPLS 2 (Hair *et al.*, 2020). Recent years witnessed a tremendous increase in the applications of PLS-SEM and its popularity in social sciences in general and in marketing studies in particular (e.g., Hair *et al.*, 2012, 2019a; 2019b) for two reasons: (1) the numerous methodological advances and tutorial articles, that made PLS accessible to applied researchers; and (2) the improvements in the software to execute PLS-SEM, for instance, the later version of SmartPLS automated many analytical functions of implementing PLS-SEM.

While there has always been controversy and debates between the advocate of each approach, recent years witnessed an increase in the intensity of the tenor of this controversy (Sarstedt and Hwang, 2020). However several scholars reported that PLS-SEM performs a good job than CB-SEM in several situations: (1) PLS-SEM is more appropriate when the research objective is prediction rather than confirmation of structural relationships; (2) PLS-SEM is a non-parametric statistical method and produces better results with non-normal data and when heteroscedasticity is present, which is typical of the data used in most social sciences studies; (3) PLS-SEM is more appropriate when the structural model is complex and includes many constructs, indicators and/or model relationships, (4) PLS path modeling performs better than alternative approaches in the analysis of data from relatively small sample sizes, that could happen if data are rare, difficult to obtain, and data from finite populations; (5) PLS-SEM works well with both reflective and formative measurement models (e.g., Hair *et al.*, 2019a, 2019b; Rigdon, 2016).

Overall, PLS-SEM was deemed the most appropriate approach to achieve the objectives of this study for several reasons. Firstly, the main objective of this study is to predict the relationships of several constructs as antecedent factors of university brand identification and the influence of university brand identification on several constructs as consequence factors. Secondly, the proposed model is rather complex and includes many constructs and many direct and indirect relationships among these constructs. Finally, the tests of normality distribution of data of this study as will be discussed later in the next chapter (see section 6.2.6) revealed a significant deviation from the normal distribution of the data. However, analysis of PLS-SEM can be executed using various kinds of software such as "R" programming, PLS-Graph, and Visual PLS, this study adopted the latest version of SmartPLS 3 (v. 3.2.9) for the analysis for several reasons: (1) the ease of use of the SmartPLS comparing to the alternative software that requires programming skills such as "R" programming, (2) the abundant of the tutorial books and articles in using SmartPls (e.g., Hair *et al.*, 2012, 2019a, 2019b, 2020), and (3) continuous updates and improvements in SmartPLS that made the latest version perform many analytical functions automatically compared to other alternatives software that are less up to date.

5.7.3.2 PLS-SEM Assessment

Following the most recent publications on PLS-SEM methodology (e.g., Hair *et al.*, 2019a; 2019b, 2020; Sarstedt *et al.*, 2019) a three-stage process was followed to evaluate the PLS-SEM model. In the first step, the measurement model was evaluated. In the second step, the structural model was evaluated to test the hypothesized direct relationships. The last step is the advanced analyses to test the mediation relationship and checking the PLS-SEM results' robustness.

5.7.3.2.1 Assessment of the Measurement Model

CB-SEM methodologists use the terminology of confirmatory factor analysis (CFA) to refer to the process of confirming the measurement model. Similarly, PLS-SEM methodologists initially used CFA to refer to the process of confirming the measurement model, but some confusion arose among researchers around using the same terminology of CFA to refer to the process of confirming measurement models for both CB-SEM and PLS-SEM (Hair *et al.*, 2020). To avoid this confusion, PLS-SEM methodologists adopt separate terminology for PLS-SEM and proposed the concept of confirmatory composite analysis (CCA) to refer to the process of confirming measurement models in PLS-SEM (Hair *et al.*, 2019a, 2020; Sarstedt and Hwang, 2020). CCA producers to assess measurement models differ depending on whether the measurement is reflective or formative. Reflective measurement is a term used to describe a situation where a set of indicators (measured variables) are assumed to jointly dependent upon or caused by another variable that is not itself observed (the underlying latent construct) (Rigdon, 2016). In reflective measurement, a change in the latent construct will be reflected in a change in all of its indicators (Hair *et al.*, 2020). On the other hand, when a set of indicators are viewed as causing rather than being caused by the underlying latent construct, is then known as formative measurement (Rigdon, 2016). With formative measurement, a change in the latent construct is not necessarily accompanied by a change in all of the indicators, but the modification in the indicators by removing or added new indicators may lead to a change in the definition of the latent construct (Hair *et al.*, 2020).

With PLS-SEM, evaluation of reflective measurement models involves four aspects of each model construct: (1) indicator loadings and reliability, (2) the construct's internal consistency reliability, convergent validity, and (4) discriminant validity, whereas the four recommended aspects to the assessment of formative measurement models: (1) convergent validity, (2) indicator multicollinearity, (3) size and statistical significance of the indicator weights, and (4) relevance and statistical significance of the indicator loadings (Hair *et al.*, 2019a, 2020).

5.7.3.2.2 Assessment of the Structural Model

Assuming that the measurement model is valid and satisfactory, the second step of PLS-SEM evaluation is the assessment of the structural model, Hair *et al.* (2020) suggested six steps in the structural model assessment: the first step is to evaluate the structural model collinearity, the second step is to examine the size and significance of path coefficients, the next three steps are to assess the predictive ability of the structural model by assessing the coefficient of determination R^2, effect size f^2, and the predictive relevance Q^2, and the last step is to assess out-of-sample prediction through PLSpredict procedures.

5.7.3.2.3 Advanced Analyses

The last stage in PLS-SEM assessment procedures is the advanced analyses related to mediation analysis, moderation analysis, multigroup analysis, and checking PLS-SEM results' robustness to support the validity of statistical conclusions (Hair *et al.,* 2020). Given that there is no hypothesized moderation relationship in this study, the advanced analyses that were performed is those related to mediation analysis to test the hypothesized mediation relationship, partial least squares based multigroup analysis (PLS-MGA) to assess for the observed heterogeneity, and the finite mixture partial least squares (FIMIX-

PLS) to assess for the unobserved heterogeneity and checking the PLS-SEM results' robustness.

5.7.3.2.3.1 Mediation Analysis

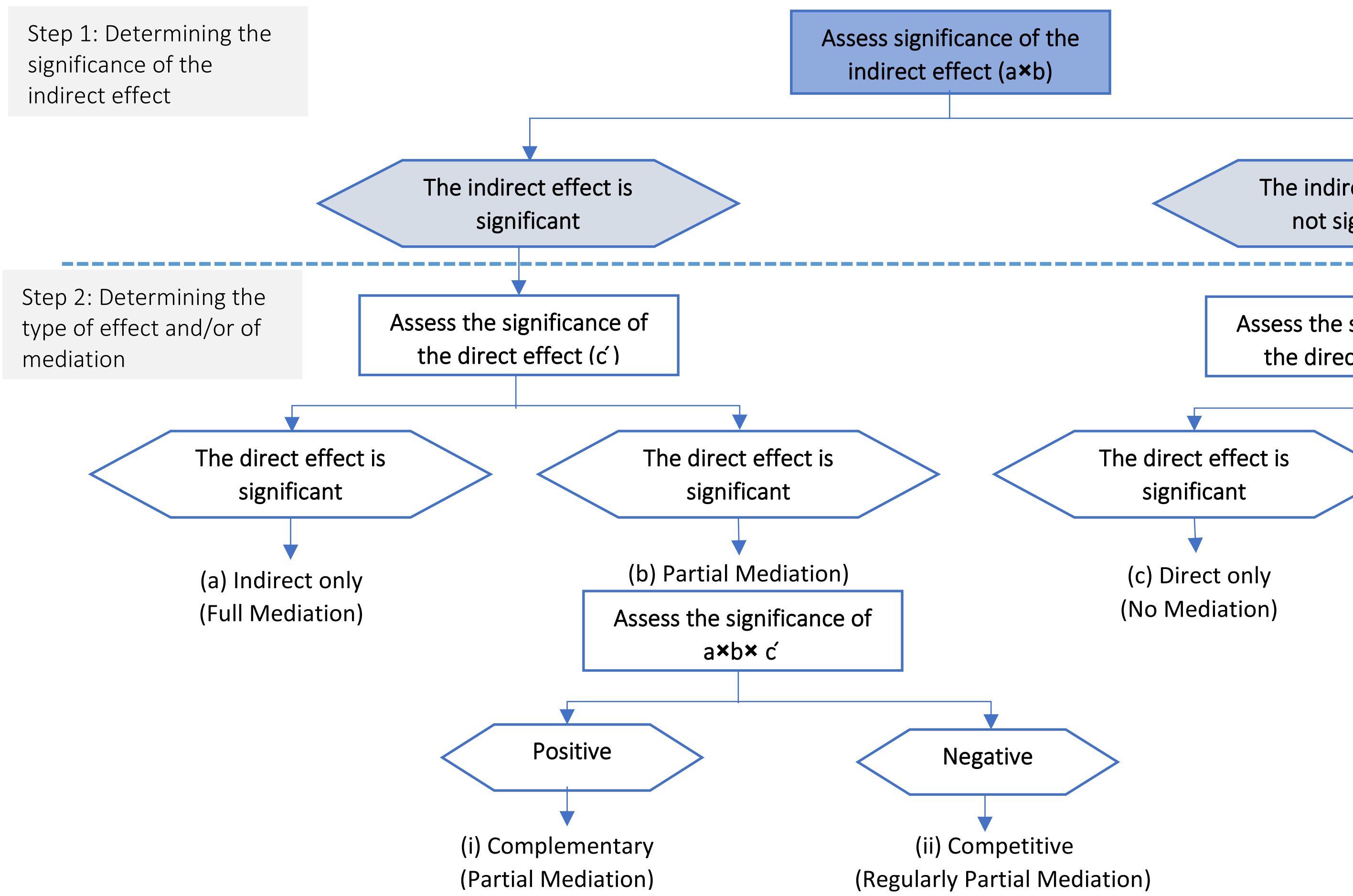
To test the hypothesized mediation relationships (i.e., indirect relationships between the constructs) Preacher and Hayes's (2004, 2008) analytical approach was followed along with the guidelines and procedures suggested by Zhao *et al*. (2010) and Nitzl *et al*. (2016) as illustrated in Figure 5.4.

5.7.3.2.3.2 Assessing for the Heterogeneity

Applications of PLS-SEM usually analyze the full set of data based on the assumption that the data stem from a homogeneous population, however, this assumption of homogeneity is often unrealistic, as different population parameters are likely to occur for different subpopulations, such as segments of customers, organizations, industries, or countries (Hair *et al.*, 2012). Given that it is highly unlikely that the observations are evenly distributed across the different segments of the population, pooling data across observations is likely to produce misleading results, which in turn can lead to incorrect conclusions. Thus, assessing for the heterogeneity is recommended to increase the methodological rigor and add more legitimization for the results (Hair *et al.*, 2018). Heterogeneity in data can be observed or unobserved: observed heterogeneity implies that differences between two or more groups of data relate to observable characteristics (e.g., gender, age, nationality, etc.), on the contrary, unobserved heterogeneity occurs when differences in structural path coefficients between two or more groups of data appear in the results but these differences do not emerge a priori from a specific observable characteristic or combinations of several characteristics (Hair *et al.*, 2018). The account for the observed heterogeneity can be through separating the data into subgroups according to the observable characteristics (age, gender, country, etc.) and carry out group-specific PLS-SEM analyses. One the other side, several approaches can be used to assess for the unobserved heterogeneity such as cluster analysis techniques or latent class techniques, however, finite mixture partial least squares (FIMIX-PLS) is the first and best understood latent class approach to PLS-SEM (Hair *et al*., 2018, 2016).

In this study, given that students' gender is the observed variable that is of interest to assess for its effect on the heterogeneity in the data, partial least squares based multigroup analysis (PLS-MGA) was performed to evaluate the significance of the difference between male and female students. Also, the finite mixture partial least squares (FIMIX-PLS) procedure was performed to assess for the unobserved heterogeneity.

Figure 5.4 Mediator Analysis Procedure in PLS-SEM



Source: Adapted from Nitzl et al. (2016, p. 1853)

5.8 Conclusions

This chapter explained the research methodology used in this study. Throughout this chapter, five fundamental questions regarding the methodology of the thesis have been addressed, which we summarize in the following points:

- **Research design**: in summary, "a two-stage research design was employed to achieve the research objectives. In the first stage, an exploratory research design was employed to develop and gain initial insights and understanding of the phenomenon under investigation and to form the basis for further investigation". In the second stage, a conclusive descriptive research design was employed to examine the relationship between university brand identification construct and its hypothesized antecedents and consequences
- **Operationalization of research constructs**: this section presents a compilation of the scales that have been used to capture the constructs incorporated in the conceptual model of the study. In all cases, all measurement scales used in this study were derived from previously validated scales.
- **Design of the research instrument**: questionnaires were the main instrument of data collection for this research. This section presents the multistage process that has been employed to develop the final version of the questionnaire.
- **Research setting and sampling method**: the Spanish University System was chosen as the research context to achieve the objectives of this study. A judgmental convenience sampling technique was used to collect data from undergraduate students at different Spanish universities.
- **Data analysis procedures**: this section outlined data analysis procedures that were undertaken to evaluate the conceptual model of the study and test the hypothesized direct and indirect relationships.

The next chapter presents the analysis of the data obtained and the test of the conceptual model described in the fourth chapter of this doctoral thesis.

CHAPTER 6

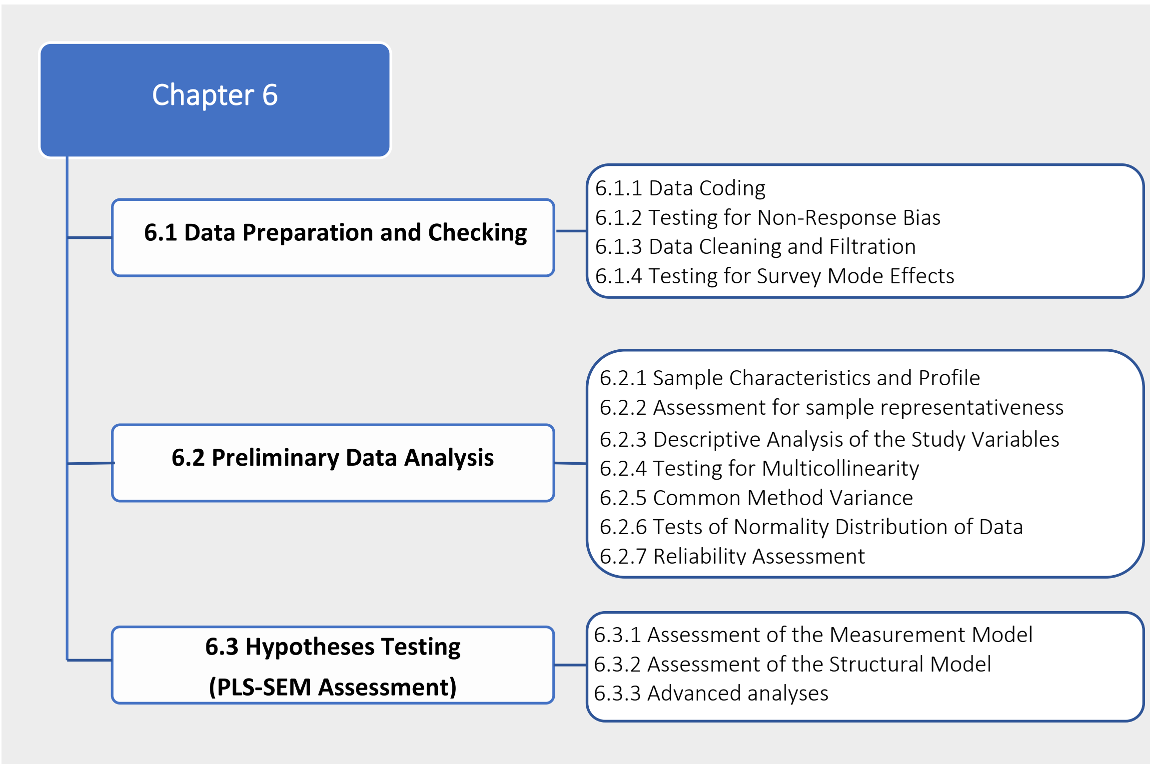
DATA ANALYSIS AND RESULTS

- Data Preparation and Checking
- Preliminary Data Analysis
- Hypothesis Testing (PLS-SEM Assessment)

DATA ANALYSIS AND RESULTS

The previous chapter described the methodology adopted to achieve the objectives of this study. This chapter organizes the empirical verification of the conceptual model and hypothesized relationships. This chapter is introduced in three main sections. The first section highlights the procedures of data preparation and checking to proceed with the statistical analysis process. Next, preliminary data analysis includes the issues related to the description of sample characteristics and profile, the descriptive analysis of the study variables, testing for multicollinearity, assessing for common method variance, tests of normality distribution of data, and reliability assessment are presented in section two. The last section presents a three-stage process to assess the PLS-SEM model by evaluating the measurement model in the first stage, then the assessment of the structural model and the results of the hypothesized direct relationships are presented in stage two. Finally, the last stage presents advanced analyses to testing the hypothesized mediation relationships and checking the PLS-SEM results' robustness. Figure 6.1 shows how the chapter is structured.

Figure 6.1 Structure of Chapter Six



6.1 Data Preparation and Checking

This section highlights the procedures that were undertaken to prepare and check the data to proceed with statistical analysis procedures.

6.1.1 Data Coding

The initial step to proceed with statistical analysis procedures is data coding. The acronyms employed to represent the constructs and the items that made up the scales employed to capture theses constructs were incorporated in the tables of the scales in the previous chapter (see Tables 5.1 to 5.9), which can be summarized in the following:

- University brand attractiveness was coded in UBA and the three items that made up the scale used to capture this construct were coded in the acronyms UBA1 to UBA3.
- University-self similarity was coded in USS and the four items that made up the scale used to capture this construct were coded in the acronyms USS1 to USS4.
- University prestige was coded UPR and the four items of the scale used to measure this construct were coded in the acronyms UPR1 to UPR4.
- University distinctiveness was coded in UDI and the three items that made up the scale used to capture this construct were coded in the acronyms UDI1 to UDI3.
- University social responsibility was coded in USR and the four items that made up the scale used to capture this construct were coded in the acronyms USR1 to USR4.
- University brand identification was coded in UBI and the six items that made up the scale used to capture this construct were coded in the acronyms UBI1 to UBI6
- Student satisfaction was coded in SAT and the five items that made up the scale used to capture this construct were coded in the acronyms SAT1 to SAT5
- Student trust was coded in STU and the three items that made up the scale used to capture this construct were coded in the acronyms STU1 to STU4.

- Student loyalty was coded in LOY and the seven items that made up the scale used to capture this construct were coded in the acronyms LOY1 to LOY7.

6.1.2 Non-Response Bias

Nonresponse can take two forms: (1) item non-response which occurs when the respondents do not provide data for a specific individual measurement item and (2) unit non-response which occurs when a potential sample unit is missing entirely from the final achieved sample (Hulland *et al.*, 2018; Sax *et al.*, 2003). This section focusing on the issue of unit non-response, whereas item non-response will be discussed in the next section. Two common reasons affect unit non-response: the inability to reach the potential sample unit (which is called a contact failure) and the respondent's refusal to participate or answer the survey (which is called a cooperation failure) (Hulland *et al.*, 2018). Hulland *et al.* (2018) highlighted two issues to the problem of unit non-response. The first issue is how to accurately estimate the non-response rate given that the response rate may be estimated using different formulas (e.g., the counts of returned surveys vs. the counts of surveys with complete data). The second issue is concerned with whether the respondents differ substantially from those who do not in terms of the hypotheses investigated in the study. If a substantial difference exists, this limited the legitimacy of the findings reached and hampers the generalizability of these findings to the population from which the sample is drawn (Armstrong and Overton 1977; Hulland *et al.*, 2018). In this regard, Armstrong and Overton (1977) argue that the estimation of unit non-response (i.e., non-response bias) is an important step before the sample is being generalized to the population.

Literature reported three main methods of non-response bias estimation: (a) comparisons with known values for the population (e.g., demographics), (b) subjective estimates (e.g., socioeconomic differences among survey non-respondent and respondent), and (c) extrapolation methods which assume that people who respond to surveys "less readily" are more likely to possess the characteristics of non-respondents, and thus both early and late respondents are subject to comparing to assess non-response bias in the sample achieved (Armstrong and Overton, 1977).

Indeed, comparing early versus later respondents is the most commonly used assessment of nonresponse bias in the marketing literature (Hulland *et al.*, 2018). In support, Hulland and his colleagues (2018) have conducted a comprehensive empirical review of 202 survey-based empirical articles published in the Journal of the Academy of Marketing Science between 2006 and 2015. They find that roughly half of those articles (N = 99; 49.0%) showed interest in investigating whether non-respondents differed from respondents in a significant way. From the papers that investigated non-response bias, they find that 62.6% of the papers used the method of the comparison early versus late respondents, as suggested by Armstrong and Overton (1977) and 32.3% used the method of comparing the characteristics of the final sample to those of the sampling frame, while several studies used other approaches (e.g., comparison of responders and non-responders). However, several scholars have criticized this method and argue that comparing early versus late respondents does not represent a meaningful assessment of nonresponse and doesn't capture the true extent of the nonresponse bias in the data (Hulland *et al.*, 2018; Sax *et al.*, 2003), also researchers rarely provide persuasive reasons to assume that late respondents might have more in common with non-respondents than early respondents (Hulland *et al.*, 2018).

As a conclusion of their point of view of the issue of nonresponse bias, Hulland et al (2018) recommended researchers to be honest in reporting the response rate in their studies, on the other side recommended reviewers to not automatically reject papers based on an argument the lower response rate unless there are no rational reasons that the respondents differ substantially from those who do not in terms of the hypotheses investigated in the study. Also, in the estimation of nonresponse bias, they recommended researchers; (1) to use analyses that are appropriate for assessing the nature of non-response in their study context, and (2) to use more than one assessment technique as it is available. Finally, they recommended researchers to compare the characteristics of the respondent group (e.g., demographics) to those of the sampling frame or another known referent group in the assessment of nonresponse bias.

Given that multiple data collection methods were adopted in this study (i.e., online and paper surveys). Non-response bias will be discussed in two points; firstly, for the paper surveys and then for the online surveys.

6.1.2.1 Paper Surveys

Although the paper surveys were distributed on consecutive days during different classes, all of the distributed surveys were collected back yielding a response rate of 100% as all students in those classes volunteered to participate in the survey. Thus, nonresponse bias may not be a significant problem for the paper surveys as none of the potential sample units was missed in the final achieved sample.

6.1.2.2 Online Surveys

In this study, the assessment for non-response bias for the online data is an important issue, because as noted previously the survey link was directed to several Spanish faculties of business and management, thus it's important to make sure that there is no substantial difference exists between the students who responded the survey and those who did not.

Unfortunately, there are many challenges in estimating nonresponse bias for the online responses in his study for two reasons: -

- *Firstly*, no sampling frame was available, thus it was almost impossible either to compare the demographic characteristics of the students who responded to the survey to those who did not or to contact non-respondents to determine the reason for nonresponse.
- *Secondly*, one email was sent for deans of the Spanish faculties of business and management, and no follow-up reminders were sent either to remind them or to remind the students in their faculties, thus there was no clear basis to classify respondents to early and late respondents to adopt the "time trends" method to assess the nonresponse bias.

Consistent with Hulland *et al.*'s (2018) recommendations on nonresponse bias assessment, comparing the demographic characteristics of online respondents to those of paper respondents could be a possible way to assess for nonresponse bias for the online responses because the profile of paper respondents is the most accurate referent group available. To do this, Crosstab and the chi-square tests of homogeneity were conducted using SPSS v.26 for all paper and online responses before excluding any case (i.e., 250 paper responses and 570 online responses) the results are presented in Table 6.1. The results show that female students were the largest segment of the respondents in both groups, but the percentage was higher for online survey respondents 64.1%, compared to 60.7% of paper respondents. Also, respondents from the age category 18-21 years old were the largest segment of the respondents in both groups, but the percentage was slightly higher for the online survey respondents 57.3%, compared to 57.0% of paper respondents. The right part of Table 6.1 presents the results of the chi-square differences test. The results showed that no significant differences exist between online respondents and paper respondents either for the distributions of the gender (X^2 =0.813, df = 1, $p > 0.05$) or age (X^2 =2.612, df=3, $p > 0.05$). Suggesting that nonresponse bias may not be a significant problem for online responses in this study.

Table 6.1 Chi-Square Test Result for the Differences in Demographic Variables Distributions Between Online and Paper Respondents

Category		Paper surveys	Online surveys	Chi-Square Tests		
				value	*df*	*Sig. (2-sided)*
Gender		N = 242	N = 568	0.813	1	0.367
	Male	39.3%	35.9%			
	Female	60.7%	64.1%			
Age		N = 244	N= 567			
	18-21	57.0%	57.3%	2.612	3	0.455
	22-25	36.9%	34.2%			
	26-30	4.9%	5.5%			
	31 or older	1.2%	3.0%			

6.1.3 Data Cleaning and Filtration

The importance of data cleaning and filtration as a primary step in moving forward with statistical analysis procedures should not be ignored, as the quality of the analysis's outcomes are dependent upon the quality of preliminary data cleaning and filtration (Hair *et al.*, 2019a). In other words, ignoring data cleaning and filtration may result in a poor quality of output and analysis. Data cleaning and filtration include data screening, missing data detection and treatment, and the assessment of outliers that will be discussed in the next sections.

6.1.3.1 Data Screening and Missing Data Analysis

Data screening and missing data analysis were conducted for the responses for the paper survey (hereafter paper responses) and then for the responses for the online survey (hereafter online responses).

6.1.3.1.1 Paper Responses

Considering that paper surveys were entered manually into an SPSS file, each survey has been carefully checked before starting the data entry process. This process revealed 10 cases that showed incomplete answers to more than 15 % of the overall survey. According to Hair *et al.* (2019a) cases or observations with 15 %, missing data are candidates for deletion whereas cases or variables with 50 % or more missing data should be deleted. The percent of missing data in these cases ranged between 15% to 57% and did not take a distinct pattern, thus those cases were excluded and not entered in the data file. Also, the screening process of the data revealed 6 cases showed straight-lining responses. Straight-lining responses occur when the respondent gives the same pattern of response (i.e., identical answers) in a battery of questions using the same response scale, which may reduce data quality (Kim *et al.*, 2019). Such responses are severely biased and should be excluded to improve data quality (Hair *et al.*, 2019a; Kim *et al.*, 2019). Thus, these 6 cases were also excluded and not entered in the data file. The remaining 234 questionnaires were carefully entered into an SPSS file and then the missing value analysis was conducted.

As mentioned in the previous section, item non-response bias occurs when the respondents do not provide data for a specific individual measurement item (Hulland *et al.*, 2018). In other words, item non-response bias occurs when the missing data have a distinct pattern identifiable for specific items (Hair *et al.*, 2019a). Table 6.2 illustrates the results of the missing data analysis classified by items and cases. It worth mention that no items or cases had missing data of more than 10 % to consider it unignorable and required special remedy (Hair *et al.*, 2019a). More specifically, the largest percentage of missing data by item was 1.3 % (3 values) which were for items (UDI1, UBA3), suggesting that item non-response bias is not regarded as a critical issue in the paper survey responses. Also, 4.3 % was the highest percentage of missing data by case, which was for the cases with two missing values cases number (1, 8, 200, 209). Thus, missing data in paper surveys is not regarded as a critical issue and as suggested by Hair *et al.* (2019a) in this situation any remedy desired could be used. Accordingly, these missing data were replaced with the respondent's average score of the variable to which the missing item belongs. Missing data in the sample profile (i.e. gender and age) were left with no manipulation.

Table 6.2 Missing Data Analysis for Paper Responses

Missing Data by Items								
Item	*Freq.*	*Percent*	*Item*	*Freq.*	*Percent*	*Item*	*Freq.*	*Percent*
USS1	0	0	UBA1	0	0	STU2	0	0
USS2	0	0	UBA2	2	0.9	STU3	1	0.4
USS3	0	0	UBA3	3	1.3	STU4	1	0.4
USS4	0	0	UBI1	0	0	LOY1	0	0
UPR1	0	0	UBI2	1	0.4	LOY2	0	0
UPR2	0	0	UBI3	1	0.4	LOY3	2	0.9
UPR3	0	0	UBI4	2	0.9	LOY4	0	0
UPR4	1	0.4	UBI5	1	0.4	LOY5	0	0
UDI1	3	1.3	UBI6	0	0	LOY6	1	0.4
UDI2	2	0.9	SAT1	0	0	LOY7	1	0.4
UDI3	2	0.9	SAT2	0	0	Gender	3	1.3
USR1	2	0.9	SAT3	0	0	Age	1	0.4
USR2	1	0.4	SAT4	0	0	Nation.	0	0
USR3	1	0.4	SAT5	0	0	Acad C.	0	0
USR4	0	0	STU1	1	0.4	Acad G.	0	0
Missing Data by Cases								
Case ID	*Freq.*	*Percent*	*Case ID*	*Freq.*	*Percent*	*Case ID*	*Freq.*	*Percent*
1	2	4.3	90	1	2.1	155	1	2.1

Missing Data by Items								
Item	*Freq.*	*Percent*	*Item*	*Freq.*	*Percen t*	*Item*	*Freq.*	*Percent*
2	1	2.1	92	1	2.1	156	1	2.1
7	1	2.1	100	1	2.1	153	1	2.1
8	2	4.3	104	1	2.1	171	1	2.1
25	1	2.1	105	1	2.1	187	1	2.1
41	1	2.1	107	1	2.1	200	2	4.3
45	1	2.1	110	1	2.1	209	2	4.3
61	1	2.1	122	1	2.1	210	1	2.1
64	1	2.1	131	1	2.1			
85	2	4.3	144	1	2.1			

Note: Acad C.= Academic Course; Acad G.= Academic Program

6.1.3.1.2 Online Responses

To avoid the problem of missing data in the online responses, the option of the item to be required was activated for all survey items, where respondents are asked to answer all the items on the screen if they are to proceed to the next one, except for two items for the demographics characteristics (i.e., gender and age) at the last screen of the survey. Therefore, the analysis of missing values was not considered in online responses. The excel file of the online responses (after excluding universities with less than 30 responses) was imported to an SPSS file. Of the 542 online responses, only two responses had missing values of the gender question and also two for the age question, which was left with no manipulation. Online responses were checked for any straight-lining responses by calculating the standard deviation for each response, which revealed for only one case has a standard deviation equal to zero. This case was removed from the data set as it provided the same answer for all the scaled items in the survey.

6.1.3.2 Assessment of Outliers

Outliers are cases that have extreme values on one variable (a univariate outlier) or such a strange combination of scores of more than one variable (multivariate outlier) (Tabachnick and Fidell, 2013). The presence of outliers in the data set may distort the results of statistical tests (Tabachnick and Fidell, 2013). Univariate outliers can be detected using statistical or graphical methods. Statistically, *z*-scores can be used to detect univariate outliers, cases with *z*-scores exceeding ± 3.29 ($p < 0.001$) on one or more variables are considered potential outliers (Hair *et al.*, 2019a; Tabachnick and Fidell, 2013). As an alternative or in addition to the *z*-scores statistical method, univariate outliers can be located also using several graphical methods, boxplots and scatterplots are the most common graphical methods (Hair *et al.*, 2019a; Tabachnick and Fidell, 2013).

In this study, the assessment of outliers was conducted in two phases. Firstly, at the level of the items (measured variables) that made up the constructs (also called latent variables or grouped variables) which was conducted using *z*-scores statistical method. Then, for the latent variable scores using both the *z*-scores method and boxplots graphical method.

The inspection of *z*-scores for measured variables showed that all online and paper cases had an acceptable range of *z*-scores on all variables (see Table C.1 in Appendix C for the assessment of outliers using z-scores for measured variables). More precisely, the results of the z-scores calculation revealed that 2.658 was the highest absolute value of *z*-scores among the online cases, which was for the item (USR4). On the other side, the results identified seven cases among paper cases with an absolute value of z-scores excessed of 3 but still less than the 3.29; four cases (55, 80, 105, 143) with -3.173 z-scores for the item UPR1, two cases (80, 105) with -3.061 z-scores for the item UPR2, and one case with -3.128 z-scores for the item UPR3 (case 76). The data for these cases were checked to make sure that they are accurately entered into the data file. Given that no mistakes were identified in the data entering for these cases, these cases have been noted to see whether they appear in detection outliers at the level of grouped variables.

Additionally, the detection of outliers was conducted at the level of latent variables scores using *z*-scores and boxplots graphs. The inspection of *z*-scores showed that all online and paper cases had *z*-scores failing below ± 3.29 ($p < 0.001$) on all latent variables (see Table 6.3). More specifically, 2.966 was the highest absolute value of *z*-scores among online cases for the item (USR4), which were for the cases 138 and 414. On the other hand, the results revealed six paper cases with an absolute value of z-scores excessed of 3 but still less than the 3.29; case 80 with -3.146 z-scores for variable UPR, three cases (37, 48,

130) with z-scores -3.113 for variable UDI, and two cases (109, 113) with z-scores -3.153 for variable USR. Interestingly, case 80 was the only case from the seven cases that noted at the level of measured variables that appeared also with a high z-scores on the grouped variable UPR but still in the acceptable range. Given that the z-scores for all cases that were noted with slightly high z-scores at the level of measured and grouped variables still in the acceptable range of z-scores, the decision was to note these cases to see whether they appear in detecting outliers employing the boxplots method.

Table 6.3 Assessment of Outliers Using Z-Scores for latent Variables

	Paper Cases			*Online Cases*		
	N	**Minimum**	**Maximum**	*N*	**Minimum**	**Maximum**
Zscore(USS)	234	-2.32774	2.32112	541	-2.18377	1.99270
Zscore(UPR)	234	-3.14605	2.16711	541	-2.96642	2.44845
Zscore(UDI)	234	-3.11395	1.92290	541	-1.86272	2.54000
Zscore(USR)	234	-3.15312	2.48150	541	-2.79796	2.12597
Zscore(UBA)	234	-2.91282	1.76904	541	-2.34955	1.90559
Zscore(UBI)	234	-1.67392	2.49320	541	-1.78177	2.40319
Zscore(SAT)	234	-2.29286	2.06798	541	-2.22525	1.80419
Zscore(STU)	234	-2.36900	2.28074	541	-2.11588	2.06946
Zscore(LOY)	234	-2.17993	2.16561	541	-1.86630	2.10393

Finally, the boxplots graph was used to detect outliers at the level of latent variables for both online and paper cases. According to the methodology of the boxplots method, outliers are those cases that fall away from the median box (Tabachnick and Fidell, 2013). The boxplots graph for all latent variables for paper cases revealed for several cases were identified as outliers; two cases (80, 142) for variable URP, three cases for the variable UDI, four cases (75, 109, 113, 143) for variable USR, and four cases (45, 80, 109, 201) for variable USR. On the other hand, the boxplots graph for online cases revealed for only five cases were identified as outliers; two cases (138, 414) for variable URP, and three cases (210, 341, 538) for variable USR (see Figure C1 and Figure C2 in Appendix C for the boxplots graph for all latent variables for paper and online cases).

Indeed, there are several strategies in the literature in dealing with outliers (Hair *et al.*, 2019a; Tabachnick and Fidell, 2013). According to Hair, *et al.*'s (2019a) recommendation "cases with outliers should be retained as long as they aren't extreme on a sufficient number of variables to be considered unrepresentative of the population. As outliers are deleted, the researcher runs the risk of improving the multivariate analysis but limiting the generalizability of the results" (Hair, *et al.*, 2019a). Interestingly, all cases that were identified as outliers in this study were identified for only one variable except for three paper cases that were identified as outliers for more than one variable; cases (80, 143) for variables (UPR, USR) and case 109 for variables (USR, UBA). Accordingly, these three cases were eliminated from the data set, whereas the other cases were retained. At the conclusion of the data cleaning and filtration process, 541 online cases and 231 paper cases were available for the next data analysis procedures.

6.1.4 Testing for Survey Mode Effects

Given that the data for this study was collected using mixed-mode surveys design (i.e., using both online surveys mode and paper surveys mode) it is of interest to test for survey mode effects to decide whether to continue in treating paper and online responses separately as two different samples during the statistical analysis procedures or to combine them as one data set. Section 5.3.4, in the previous chapter, outlined the procedural remedies that were undertaken in the survey design stage to minimize the errors related to the differences in the survey design across the two modes.

This section presents a comparison for the distributions of the online and paper respondents for the demographic variables to assess for the mode effects, as the more general approach for the assessing for survey mode effects in the literature (De Leeuw *et al.*, 2018; Dillman *et al.*, 2014). As previously illustrated in section 6.1.2 online respondents' distributions for demographic variables were not significantly different from those of paper respondents, but considering that several cases were excluded during the data cleaning and filtration phase, the chi-square tests of homogeneity was conducted again for the valid cases that will be the subject of the next statistical analysis procedures. The results showed that the demographics characteristics of online respondents still homogenize to those of paper respondents (see Table 6.4).

The researcher knowledgeable about the method of comparing measurements means between the two modes through t-test for equality of means to assess for mode effects, but this method will be not useful in this study because every mode was used to collect data from different subgroups (paper survey mode was used with students at the University of Granada, whereas online mode was used with students at the other universities), thus the mode effects "are confounded with selection effects as the answer between the two modes may differ because of the mode or because of different subgroups responded in different modes" (De Leeuw, 2005; De Leeuw *et al.*, 2018). However, demographics variables are not very strong predictors to assess for the mode effects, it may provide some insight into potential mode effects, and some empirical data are better than none (De Leeuw, 2005; De Leeuw *et al.*, 2018).

Considering the following arguments: (1) the limited effects of the survey mode between paper and online survey modes limited to college student populations are well reported in the literature (Carini *et al.*, 2003; Sax *et al.*, 2003); (2) online respondents' distributions for the demographics variables not differed significantly to those of paper respondents; and (3) the two surveys were developed according to unified survey mode strategy, survey mode effects supposed to not be a source of concern in this study. Accordingly, the decision here is to treat the online and paper responses as one data set during the following statistical analysis procedures.

Table 6.4 Chi-Square Test Result for the Differences in Demographic Variables Distributions after Data Cleaning and Filtration Phase

Category		Paper surveys	Online surveys	Chi-Square Tests		
				value	*df*	*Sig. (2-sided)*
Gender		*N* = 228	*N* = 539	0.961	1	0.327
	Male	38.6%	34.9%			
	Female	61.4%	65.1%			
Age		*N* = 230	*N* = 539			
	18-21	58.7%	56.4%	6.305	3	0.098
	22-25	37.0%	34.9%			
	26-30	3.9%	5.6%			
	More than 30	0.4%	3.2%			

6.2 Preliminary Data Analysis

This section presents the preliminary analysis procedures that were undertaken before moving forward in the statistical analysis procedures using SmartPLS software to test the conceptual model and the proposed hypotheses. This section starts with frequency statistics of sample characteristics and profiles. Then, the assessment for sample representativeness was presented. Next, a descriptive analysis of the study variables to provide an overview of these variables was presented. Finally, the assessment for multicollinearity, common method variance, normality distribution of data, and the reliability of the scales was presented.

6.2.1 Sample Characteristics and Profile

This section displays the profile of the sample according to several factors: sociodemographic variables, university, academic year, and academic program.

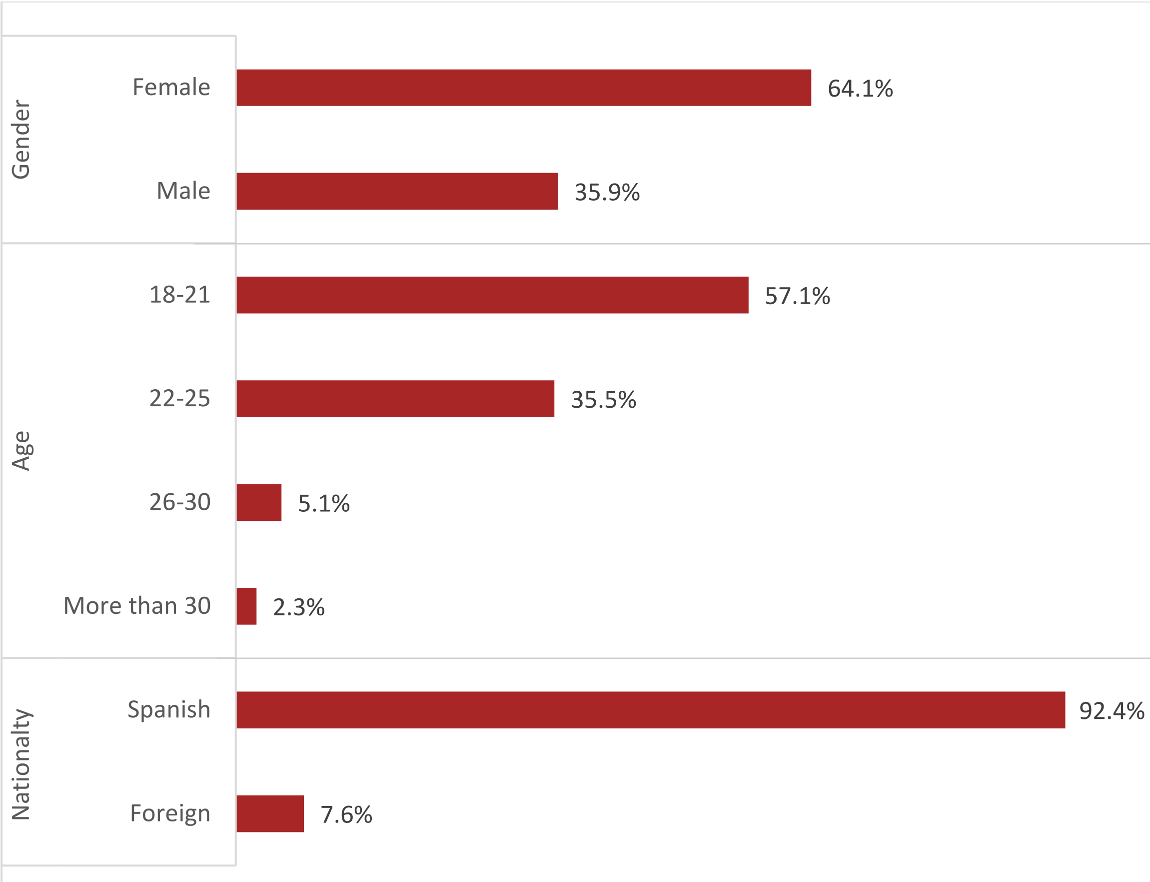
6.2.1.1 Sample Distribution by Sociodemographic Variables

Of the 772 respondents, only 5 respondents had missing data on the gender question. Figure 6.2 illustrates the distribution of the sample by gender for valid cases (N=767). As shown, the largest segment of the respondents were female students 64% (491studnets). Interestingly, this profile of the sample (36% male and 64 % female students) are consistent with other studies carried out on the Spanish undergraduate students' population (e.g., Canal Domínguez and Rodríguez Gutiérrez, 2019; Rejón-Guardia *et al.*, 2020; Luque-Martínez and Doña-Toledo, 2019).

Regarding the age variable of the 772 respondents, only three respondents did not answer the age question. Not surprisingly that the biggest segment of the respondents aged between 18 and 21 years old as this segment accounts for 57.1 % (439 students) of the overall sample. On the other hand, respondents aged 31 or older were the lowest group among respondents 2.3% (18 students) (see Figure 6.2).

Finally, as Figure 6.2 shows of the 772 respondents, only 7.6% (59 students) were international students represent 15 different nationalities (e.g., French, German, Mexican) which all were grouped under the category of other nationalities.

Figure 6.2 Sample Distribution by Sociodemographic Variables

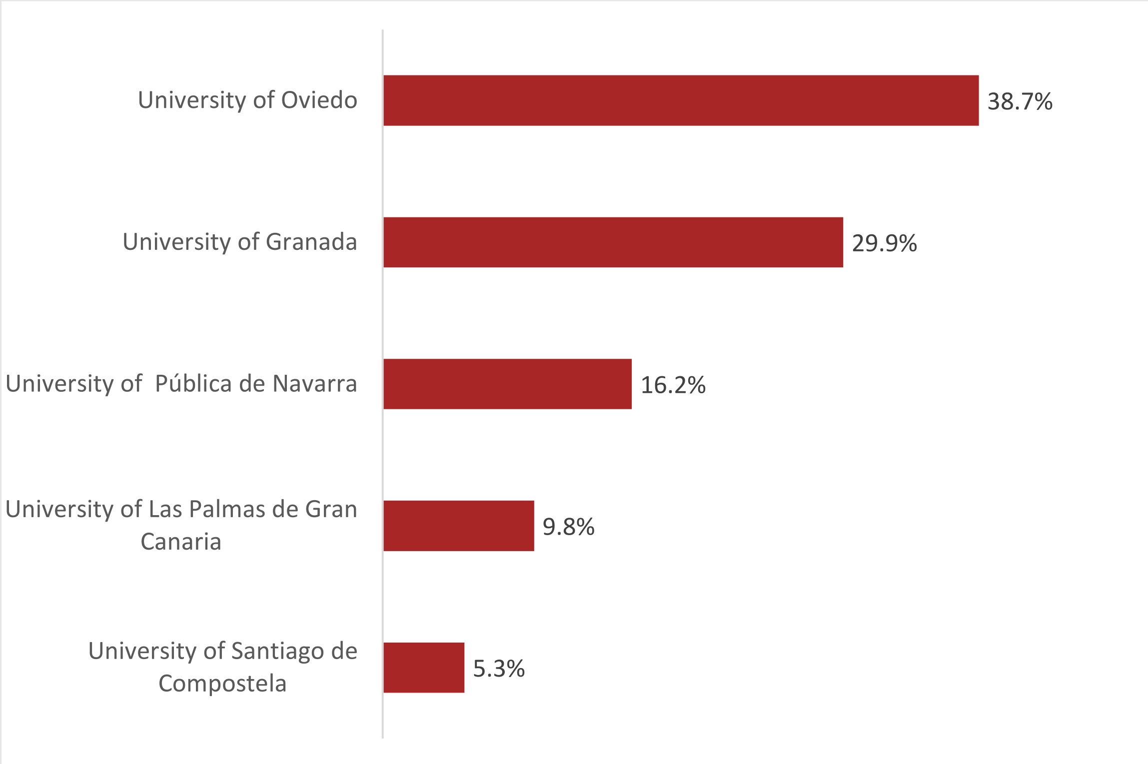


Source: Based on the data of the yearbook of 2019/2020 of Facts and figures of the Spanish University System issued by the Spanish Ministry of Education, Culture, and Sport (2020).

6.2.1.2 Sample Distribution by a University

The considered sample is composed of responses that came from five different universities. The biggest segment of responses came from the University of Oviedo 38.7 (299 students) followed by the University of Granada 29.9% (231 students). While the responses from the University of Santiago de Compostela was the lowest segment of only 5.3% (41students) of total responses (see Figure 6.3).

Figure 6.3 Sample Distribution by University

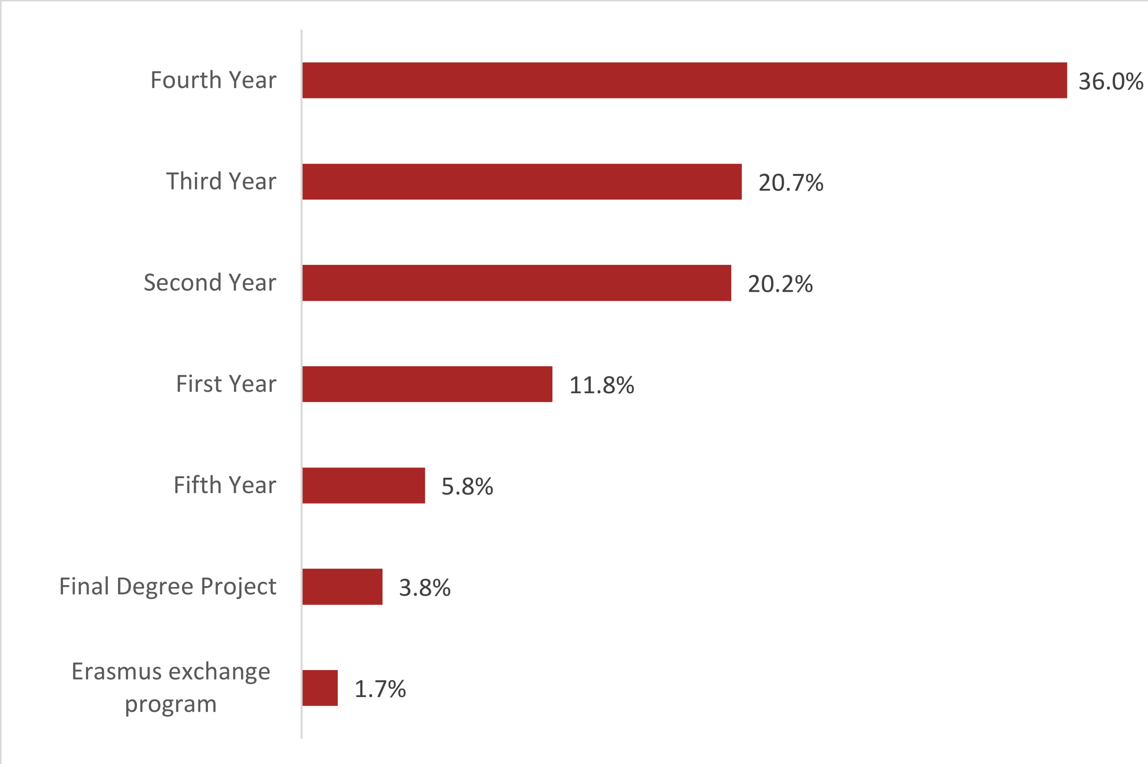


Source: Based on the data of the yearbook of 2019/2020 of Facts and figures of the Spanish University System issued by the Spanish Ministry of Education, Culture, and Sport (2020).

6.2.1.3 Sample Distribution by Academic Year

The distribution of the students by academic year is illustrated in Figure 6.4. It's worth noting that the biggest segment of respondents were students in the fourth academic year 36.0 % (278 students). The percentages of the respondents from the third and second academic year almost close to each other; 20.7% (160 students) and 20.2% (156 students) respectively. Interestingly, the fifth academic year appeared in the results because there are many special academic programs offered by some faculties included in the study with five academic years as the duration of studying. For instance, the international double bachelor's degree in business administration and economics organized by the University of Pública de Navarra and also the double degree program of business administration and law organized by the University of Oviedo. Of the total respondents, 3.8% (29 students) completed their academic years but still working on the final degree project, and 1.7 % were students of Erasmus exchange programs.

Figure 6.4 Sample Distribution by Academic Year

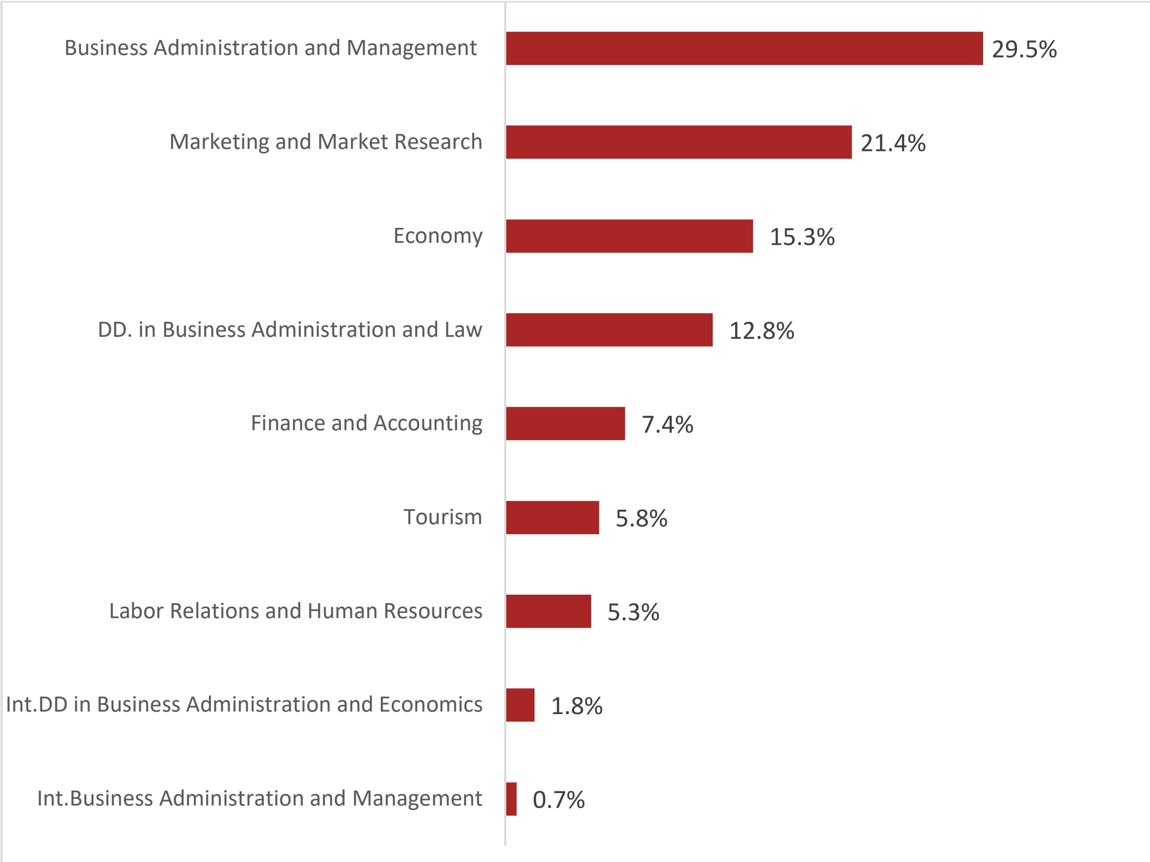


Source: Based on the data of the yearbook of 2019/2020 of Facts and figures of the Spanish University System issued by the Spanish Ministry of Education, Culture, and Sport (2020).

6.2.1.4 Sample Distribution by the Academic Program

Figure 6.5 displays the distribution of the respondents according to their academic programs. Interestingly, the respondents belong to the majority of the undergraduate academic programs offered by the Spanish faculties of business and economic included in the study. As Figure 6.7 illustrates students of the program of business administration and management were the largest segment with 29.5% of total respondents followed by students of the program of marketing and market research of 21.4% (165 students). Whereas students of the academic program of international business administration and management were the lowest segment of only 0.6% (5 students) of total respondents.

Figure 6.5 Sample Distribution by Academic Program



Note: DD.= Double Degree Program; Int. = International
Source: Based on the data of the yearbook of Facts and figures of the Spanish University System issued by the Spanish Ministry of Education, Culture, and Sport (2020).

6.2.2 Assessment for Sample Representativeness

Considering that the objectives of this study were not developed by scientific areas, the sociodemographic characteristics (i.e., gender, age, and nationality) could be the appropriate control characteristics that can be used to judge the extent to which the sample is the representativeness of the population, by comparing the distribution of the sociodemographic characteristics in the population with those of the sample.

Figure 6.6 exhibits the distribution of sociodemographic characteristics in the overall Spanish undergraduate students' population along with the distribution of those characteristics in the population of the Spanish undergraduate students of the social and legal sciences because the sample was derived from students of this field. As Figure 6.6 shows the distribution of sociodemographic characteristics in the population of undergraduate students of the social and legal sciences field is homogeneous with the distribution of those characteristics in the overall undergraduate students' population with few differences in the distribution of gender and nationality. Specifically, the percentage of female students is slightly higher in the population of undergraduate students of the social and legal sciences (59.8%) than those in the overall undergraduate students' population (55.2%). Also, the percentage of foreign students in the population of undergraduate students of the social and legal sciences field (7.6%) is slightly superior to those in the overall undergraduate students' population (5.4%).

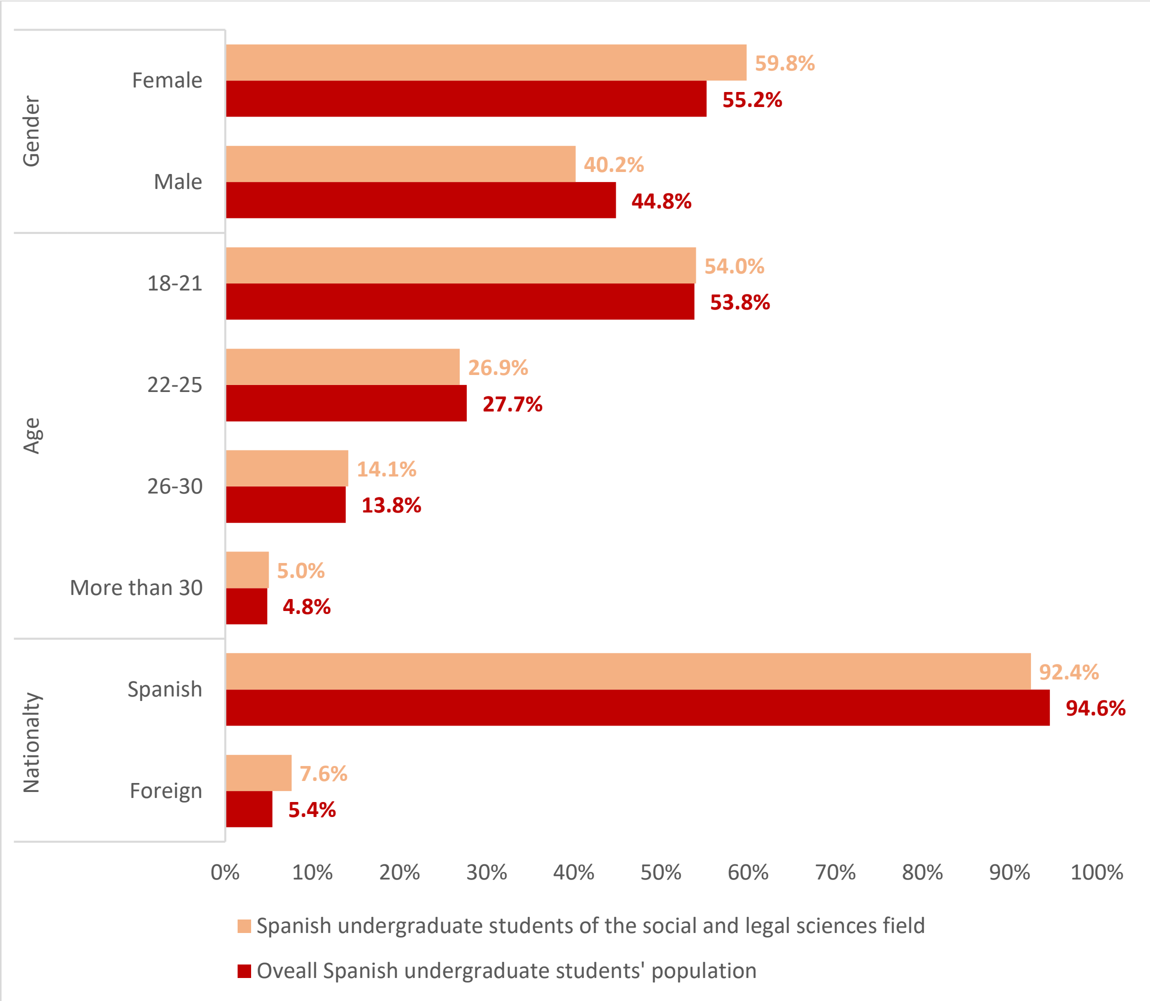
Figure 6.7 exhibits a comparative distribution by sociodemographic characteristics in the sample, undergraduate students of the social and legal sciences field, and overall Spanish undergraduate students' population. As Figure 6.7 shows the distribution of gender in the sample follows the same pattern in the population of undergraduate students of the social and legal sciences field and overall Spanish undergraduate students' population, as females have a greater presence in all.

Regarding age distribution, as Figure 6.7 indicates, the distribution of age has the same pattern in the three groups. Precisely, students aged between 18 and 21 years old shape the largest segment in the three groups: 57.1% in the sample, 54% in the population of Spanish undergraduate students of the social and legal sciences field, and 53.8% in the overall Spanish undergraduate students' population. Whereas students aged 31 or older shape the smallest segment in the three groups: 2.3% in the sample, 5% in the population of Spanish undergraduate students of the social and legal sciences, and 4.8% in the overall Spanish undergraduate students' population.

Finally, Figure 6.7 also shows a comparative distribution by nationality between students in the sample and the overall Spanish undergraduate students' population, which shows that the percentage of the presence of the foreign students in the sample almost similar to those in the overall Spanish undergraduate student population.

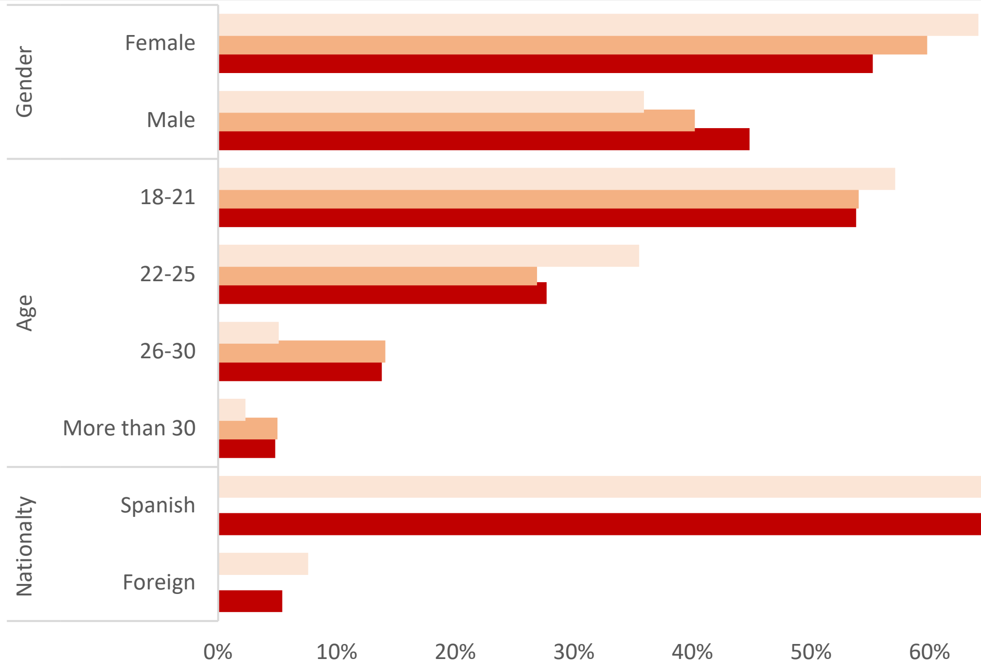
In summary, the results of the comparison of the distribution of the sociodemographic characteristics in the sample and both of the population of Spanish undergraduate students of the social and legal sciences and overall Spanish undergraduate students' population show that the profile of the analyzed sample is representative of the profile of the population of the Spanish undergraduate students of the social and legal sciences and overall Spanish undergraduate students' population, which favors the possibility of generalizing the results obtained in this doctoral thesis.

Figure 6.6 Sociodemographic Characteristics of Spanish Undergraduate Students' Population (Academic Course 2018/2019)



Source: Based on the data of the yearbook of Facts and figures of the Spanish University System issued by the Spanish Ministry of Education, Culture, and Sport (2020).

Figure 6.7 Comparative Distribution By Sociodemographic Characteristics in The Sample, Ur
Social and Legal Sciences Field, and Overall Spanish Undergraduate Student



	Nationalty		Age		
	Foreign	Spanish	More than 30	26-30	22-25
Sample	7.60%	92.40%	2.30%	5.10%	35.50%
Spanish undergraduate students of the social and legal sciences field			5.00%	14.10%	26.90%
Oveall Spanish undergraduate students' population	5.40%	94.60%	4.80%	13.80%	27.70%

Sample   Spanish undergraduate students of the social and legal sciences field   Oveall Spanish under

Source: Based on the data of the yearbook of Facts and figures of the Spanish University System issued by the Spani
Sport (2020).

6.2.3 Descriptive Analysis of the Study Variables

The descriptive analysis for each of the variables used in the study and their corresponding scale items including the minimum and maximum values chosen by respondents, the mean value (Mean), the standard deviation (SD), and the coefficient of variation (CV) are shown in Table D.1 located in Appendix D. The mean values of the constructs of USS, UPR, USR, UBA, SAT, and STU demonstrate that the respondents are likely to have favorable perceptions of these constructs as the mean values for each of these constructs were above 4 and ranged between 4.052 to 4.466. For instance, participants tend to have favorable perceptions of the UPR construct as the mean value for the four items that made up this construct was 4.466 with a standard deviation value of 1.099 and coefficient of variation of 24.6%, whereas the order of the items that made up this construct according to the mean values was (UPR3, UPR2, UPR1, UPR4) with mean values of (4.320, 4.332, 4.574, 4.639) and coefficient of variation of (31.6%, 29,7%, 30.7%, 28.7%) respectively.

On the other side, the respondents tend to have unfavorable perceptions of the constructs of UDI, UBI, and LOY as the mean values of these constructs falling below 4 which were (3.897, 3.516, 3.886) respectively. For instance, the construct of UBI had the lowest mean value of 3.516 with a standard deviation of 1.436 and a coefficient of variation of 40.8 %, the mean values for all the six items that made up this construct falling below 4 and ranged between 3.156 and 3.883.

6.2.4 Testing for Multicollinearity

Testing for multicollinearity is an important issue for models with more than one predictor, which exists when there is a strong correlation between two or more predictors (Field, 2018). In other words, multicollinearity refers “to the extent to which a variable can be explained by the other variables in the analysis” (Hair *et al.*, 2019a). Field (2018) points out three problems arise as a result of the high level of multicollinearity that poses a severe threat to the model under investigation; (1) a high level of multicollinearity leads to untrustworthy estimates; (2) affect negatively on the predictive capability of the model (i.e., the variance in the outcome for which the model accounts); and

(3) leads to the confounding of the estimates of the coefficients, which in turn makes it difficult to assess the individual importance of a predictor.

According to Hair *et al.* (2019a), the simplest way to test for multicollinearity is by reviewing the correlation matrix for the independent variables (i.e., predictors variables). The correlation coefficient between two variables is somewhere between -1 and 1. The presence of high correlations between two predictor variables (generally 0.90 or above) indicating the existence of multicollinearity (Hair *et al.*, 2019a). Table 6.5 below depicts the correlation matrix between the study variables. It's worth mentioning that 0.749 was the highest correlation coefficient between the predictor variables which was between SAT and STU as predictor variables of LOY. Suggesting that multicollinearity is not a matter of concern in this study.

Additionally, the tolerance and the variance inflation factor (VIF) are two recognized measures to assess for multicollinearity (Field, 2018; Hair *et al.*, 2019a). The tolerance is defined as "the variability of a specific independent variable not explained by the other independent variables", which is calculated simply as tolerance $1\text{-}R^2$ (Hair *et al.*, 2019a, p. 265). Whereas VIF indicates whether a predictor variable has a strong linear relationship with the other predictor or predictors in the model of investigation and is calculated as the inverse of the tolerance value (Field, 2018). The tolerance values up to 0.10, which corresponding to a VIF of 10, are usually used as thresholds of accepted levels of multicollinearity (Field, 2018), but recent research suggested that VIF values of 10 are very high and the suggested VIF values of 3 to 5 as thresholds of accepted levels of VIF values (Hair *et al.*, 2019a, 2019b).

Table 6.6 illustrates a full collinearity assessment results for all of the study variables. It's worth mentioning all tolerance values were above 0.10 and ranged between 0.241 to 0.669. Also, VIF values far below 5 and ranged from 1.495 to 4.163, which gives further support that multicollinearity is not a matter of concern in this study.

Table 6.5 Correlation Matrix for the Study Variables

	USS	UPR	UDI	USR	UBA	UBI	SAT	STU	LOY
USS	1								
UPR	0.547**	1							
UDI	0.423**	0.683**	1						
USR	0.599**	0.472**	0.479**	1					
UBA	0.720**	0.732**	0.648**	0.606**	1				
UBI	0.444**	0.384**	0.352**	0.413**	0.476**	1			
SAT	0.652**	0.598**	0.479**	0.600**	0.738**	0.557**	1		
STU	0.631**	0.599**	0.490**	0.671**	0.704**	0.468**	0.749**	1	
LOY	0.565**	0.634**	0.550**	0.521**	0.706**	0.604**	0.773**	0.664**	1

Note: **Correlation is significant at the 0.01 level (2-tailed).

Table 6.6 Multicollinearity Diagnostics

	Collinearity Statistics													
	USS		UPR		UDI		USR		UBA		UBI		SAT	
	Tole	VIF	Tole	VIF	Tole	VIF	Tole	VIF	Tole	VIF	Tole	VIF	Tole	V
USS	-		0.412	2.426	0.418	2.390	0.430	2.323	0.473	2.116	0.413	2.419	0.417	2
UPR	0.366	2.729	-		0.430	2.326	0.368	2.716	0.394	2.541	0.366	2.730	0.365	2
UDI	0.464	2.153	0.537	1.863	-		0.472	2.120	0.487	2.053	0.456	2.192	0.461	2
USR	0.493	2.030	0.474	2.110	0.486	2.056	-		0.471	2.123	0.472	2.121	0.473	2
UBA	0.276	3.618	0.259	3.864	0.257	3.898	0.241	4.157	-		0.240	4.163	0.249	4
UBI	0.608	1.644	0.606	1.649	0.605	1.654	0.606	1.650	0.604	1.655	-		0.612	1
SAT	0.269	3.711	0.266	3.766	0.269	3.724	0.267	3.746	0.275	3.634	0.269	3.716	-	
STU	0.332	3.015	0.335	2.989	0.331	3.026	0.370	2.701	0.334	2.996	0.330	3.030	0.363	2
LOY	0.305	3.276	0.311	3.215	0.309	3.241	.305	3.275	0.309	3.238	0.337	2.965	0.359	2

Note: Tole. = Tolerance value; VIF= variance inflation factor

6.2.5 Common Method Variance

As previously declared in the previous chapter (see section 5.4), this study is likely to be vulnerable to common method bias subject as it relied on single-source data and all constructs were measured using the same medium. Section 5.4 presented several procedural remedies that were undertaken before the start of the data collection process (i.e., the stage of the survey design) to minimize the effects of the common method bias problem. This section presents two separate statistical analyses that were executed to assess the severity of common method bias in the data collected.

Harman's single factor test is one of the most common statistical techniques for the detection of common method bias. The methodology of this approach is to conduct an exploratory factor analysis for all scales' items under investigation and to check for whether one single factor does emerge or whether one general factor does account for a majority of the variances between the measures because the common method bias is more likely to be a problem if one factor emerged or one-factor accounting for more than 50% of the total variance (Chang *et al.*, 2010; Podsakoff and Organ, 1986; Podsakoff *et al.*, 2003). To do that, all scales' items under study were tested via an exploratory factor analysis using SPSS 26, the number of factors was constructed to a single factor, and none rotated rotation method was used. The results of exploratory factor analysis showed six factors having an eigenvalue higher than 1, accounting for approximately 70% of the total variance, and the first factor accounts for 34 % of the total variance. Considering that several factors were identified and no factor accounting for more than 50% of the overall variances, common method bias is not a significant problem in the data set.

Additionally, Kock and Lynn (2012) proposed the method of common method bias assessment based on a full collinearity test. The full collinearity test is a comprehensive method for simultaneous assessment of both vertical collinearity (predictor–predictor collinearity) and lateral collinearity (predictor criterion collinearity), which have received wide acceptance among recent studies as a useful method for detection for common method bias (Buil *et al.*, 2020; Kock, 2015). The methodology of this approach is to assess, the variance inflation factors (VIF) for all latent variables included in the model, VIF values should be lower than 5, or ideally below 3.3 to consider the common method bias is not a substantive concern among constructs under investigation (Kock and Lynn, 2012; Kock, 2015). The results of a full collinearity assessment for all of the study variables were displayed in the previous section, which revealed that all VIFs values were lower than 5 and ranged between 1.495 to 4.163 (see Table 6.6), which gives further support that common method variance is not a substantive concern in this study.

6.2.6 Tests of Normality Distribution of Data

The assumption of normality distribution of the data is fundamental in almost every multivariate analysis (Tabachnick and Fidell, 2013), which refers to the shape of the data distribution for an individual metric variable follows the normal distribution (Hair *et al.*, 2019a). The assessment of the normality can be assessed "using either statistical or graphical methods" (Tabachnick and Fidell, 2013).

The simplest ways to the inspection of the normal distribution of the variables are using skewness and kurtosis values and the visual check of the frequency histogram graph (Hair *et al.*, 2019a). The values of Kurtosis reflects the "peakedness" or "flatness" of the distribution compared with the normal distribution, whereas skewness values use to describe the balance of the distribution graph, when a distribution is normal, the values of skewness and kurtosis are zero (Hair *et al.*, 2019a). The positive skewness values suggest a cluster of scores on the left side of the distribution, whereas the negative skewness values indicate a pile-up of values to the right side. On the other hand, the positive kurtosis values indicate a peaked distribution with many values piled up in the tails, whereas the negative kurtosis values indicate a flat distribution with too few scores in the tails.

In this study, the values of skewness and kurtosis were estimated for all variables using SPSS. The results showed that all study variables had negative values of skewness and ranged from -0.099 to -0.313, except the variable of UBI that had positive values of skewness of 0.086. With respect to kurtosis, it was found that also all variables had negative values of kurtosis and ranged from -0.339 to -0.754 except the variable of UPR that had positive values of kurtosis of 0.006 (see Table 6.7). The significance of skewness and kurtosis values was examined by calculating z scores. A z value of skewness and/or kurtosis that falls beyond the range of ±1.96 suggests a significant deviation from normality at (0.05 significance level) (Hair *et al.*, 2019a). Table 6.7 shows that several departures from normality exist as several variables had z value falls beyond the critical ratio of ±1.96. Tabachnick and Fidell (2013, p. 80) argue that with large samples, the significance level of skewness is not as important as its actual size (worse the farther from zero) and the visual appearance of the distribution. As noted earlier, the actual values of skewness and kurtosis showed that all variables had values of skewness and kurtosis differed from zero, which indicates several departures from normality, and this can be clear by the visual check of the frequency histograms graphs of the variables (see Appendix E for the frequency histograms graphs of the study variables to spot normality).

For further validation, the two most common significance tests of normality (the Kolmogorov–Smirnov, and Shapiro–Wilk tests) were conducted. These tests "compare the scores in the sample to a normally distributed set of scores with the same mean and standard deviation, significant results ($p < 0.05$) suggest that the distribution in question is significantly different from a normal distribution (i.e., it is non-normal)" (Field, 2018). As Table 6.7 displays, all variables for both tests of normality were significant ($p = 0.000$), indicating a significant deviation from the normal distribution. Therefore, non-parametric tests are to be adopted for inferential statistics using partial least squares structural equation modeling (PLS).

Table 6.7 Tests of Normality

	Skewness			Kurtosis			Kolmogorov-Smirno		
	Statistic	Std. Error	*z* value	Statistic	Std. Error	*z* value	Statistic	df	Si
USS	-0.196	0.088	-0.107	-0.435	0.176	0.189	0.086	772	**0.0**
UPR	-0.282	0.088	-0.759	0.006	0.176	2.207	0.071	772	**0.0**
UDI	-0.099	0.088	0.628	-0.620	0.176	-0.658	0.072	772	**0.0**
USR	-0.140	0.088	0.317	-0.339	0.176	0.628	0.059	772	**0.0**
UBA	-0.309	0.088	-0.963	-0.482	0.176	-0.026	0.097	772	**0.0**
UBI	0.086	0.088	2.030	-0.754	0.176	-1.271	0.062	772	**0.0**
SAT	-0.313	0.088	-0.994	-0.581	0.176	-0.48	0.076	772	**0.0**
STU	-0.279	0.088	-0.736	-0.464	0.176	0.056	0.069	772	**0.0**
LOY	-0.105	0.088	0.583	-0.617	0.176	-0.644	0.049	772	**0.0**

6.2.7 Internal Consistency Reliability Assessment

Before moving forward in the statistical analysis procedures using SmartPLS software, the internal consistency reliability of the scales was assessed using reliability analysis procedures with SPSS. The concept of internal consistency reliability was introduced previously (see section 5.3.5 in the previous chapter), as was noted Cronbach's alpha is a widely used measure for the simple reliability that is used as an indicator of scale reliability (Hair *et al.*, 2019a; Field, 2018).

Table 6.8 summarizes the simple reliability analysis results for the study variables. Interestingly, the results showed that the Cronbach alpha value for all constructs was above 0.7 and ranged between 0.832 to 0.944, which reflects a high level of internal consistency of all scales adopted in this study. Additionally, all values in the column of corrected item-total correlation are above 0.3, which indicates all items were correlated well with their overall scales. Also, the values in the column of Cronbach's alpha if item deleted indicate that none of the items here would improve the reliability if they were deleted except for two items USR1 (the deletion of USR1 will improve the reliability of USR from 0.880 to 0.882) and STU1(the deletion of STU1 will improve the reliability of STU from 0.918 to 0.923). Given that both USR and STU achieved a good level of reliability and the improvement that will occur if USR1 and/or STU deleted is very slight, the decision was to retain all items and no items were removed at this stage.

Table 6.8 Simple Reliability Analysis Results

Construct	Items	Corrected item-total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
USS	USS1	0.844	0.933	0.944
	USS2	0.857	0.929	
	USS3	0.865	0.926	
	USS4	0.895	0.917	
UPR	UPR1	0.665	0.782	0.832
	UPR2	0.697	0.773	

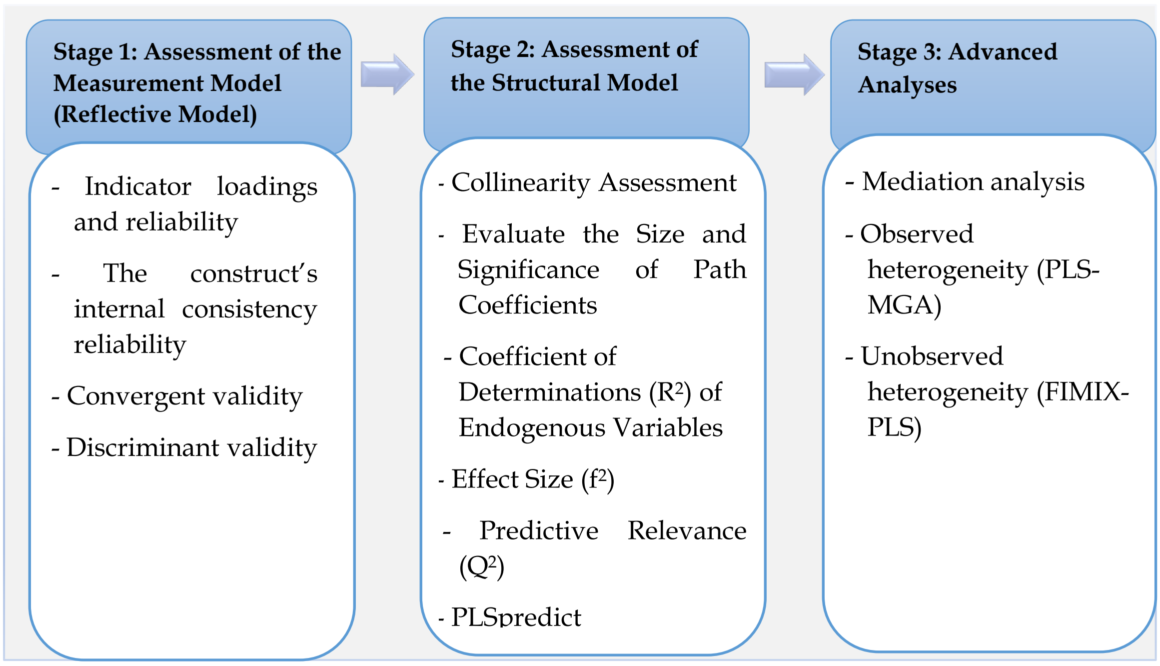
Construct	Items	Corrected item-total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
	UPR3	0.723	0.759	
	UPR4	0.564	0.830	
UDI	UDI1	0.727	0.792	0.852
	UDI2	0.760	0.757	
	UDI3	0.686	0.831	
USR	USR1	0.658	0.882	0.880
	USR2	0.805	0.822	
	USR3	0.737	0.848	
	USR4	0.776	0.834	
UBA	UBA1	0.776	0.858	0.893
	UBA2	0.764	0.875	
	UBA3	0.836	0.810	
UBI	UBI1	0.527	0.862	0.863
	UBI2	0.569	0.858	
	UBI3	0.764	0.821	
	UBI4	0.781	0.817	
	UBI5	0.741	0.824	
	UBI6	0.581	0.853	
SAT	SAT1	0.820	0.910	0.928
	SAT2	0.860	0.902	
	SAT3	0.817	0.911	
	SAT4	0.819	0.911	
	SAT5	0.748	0.925	
STU	STU1	0.727	0.923	0.918
	STU2	0.853	0.881	
	STU3	0.813	0.894	
	STU4	0.863	0.877	

Construct	Items	Corrected item-total correlation	Cronbach's alpha if item deleted	Cronbach's alpha
LOY	LOY1	0.707	0.898	0.909
	LOY2	0.703	0.899	
	LOY3	0.682	0.900	
	LOY4	0.838	0.884	
	LOY5	0.832	0.884	
	LOY6	0.691	0.900	
	LOY7	0.652	0.904	

6.3 Assessment of PLS-SEM Path Model

A three-stage process was applied to evaluate the model. In the first stage, the measurement model was evaluated using a confirmatory composite analysis (CCA) process. In the second stage, the structural model was assessed to test the hypothesized direct relationships. The last stage was the advanced analyses to test the hypothesized mediation relationships and checking the PLS-SEM results' robustness. Figure 6.8 presents a summary of these stages.

Figure 6.8 Summary of PLS-SEM Assessment Procedures



Source: Based on Hair et al. (2020)

6.3.1 Measurement Model Assessment

This section underlines the procedures employed to evaluate the measurement model following Hair *et al.*'s (2019a, 2019b, 2020) recommendations for evaluating reflective measurement models, which is the case in this study. Four main aspects are recommended for evaluating reflective measurement models: indicator loadings and reliability, the construct's internal consistency reliability, convergent validity, and discriminant validity, which will be detailed in the next sections.

6.3.1.1 Indicator Loadings and Reliability

The assessment process of the reflective measurement model begins by examining the indicator loadings and reliability. The indicator loadings should have a value of at least 0.708 and associated t-statistic above ± 1.96 to be significant for a two-tailed test at the 5% level or associated confidence intervals not include zero to be statistically significant, squaring indicator loadings provides a measure of indicator reliability (i.e., the amount of variance shared between the individual indicator variable and its corresponding latent construct) should be a minimum of 0.50 (Hair *et al.*, 2019a; 2020). PLS algorithm and bootstrapping procedures were executed to estimate the indicator loadings and associated t-statistic and confidence intervals. As Table 6.9 illustrates all indicators for the study have standardized loadings on its associated constructs exceeded the recommended threshold of 0.708, thus meeting the square of the indicator loadings to meet or exceed 0.50 and confirming the reliability for all indicators except for two indicators UBI1 and UBI6. These two indicators were retained because their values are approached the recommended threshold for indicator loadings and reliability and the elimination would jeopardize the content validity of the UBI construct.

Table 6.9 Indicator Loadings and Reliability

Construct	Items	Loading	T statistics	P Values	95% CI	Indicator Reliability
USS	USS1	0.912	118.441	0.000	[0.896; 0.926]	0.832
	USS2	0.922	130.629	0.000	[0.907; 0.935]	0.850
	USS3	0.924	105.798	0.000	[0.905; 0.939]	0.854
	USS4	0.943	163.517	0.000	[0.931; 0.953]	0.889
UPR	UPR1	0.833	65.938	0.000	[0.806; 0.855]	0.694
	UPR2	0.851	77.426	0.000	[0.828; 0.871]	0.724
	UPR3	0.852	70.600	0.000	[0.826; 0.874]	0.726
	UPR4	0.726	27.916	0.000	[0.671; 0.772]	0.527
UDI	UDI1	0.894	112.817	0.000	[0.878; 0.909]	0.799
	UDI2	0.902	111.238	0.000	[0.885; 0.917]	0.814
	UDI3	0.840	54.517	0.000	[0.807; 0.868]	0.706
USR	USR1	0.784	42.079	0.000	[0.744; 0.818]	0.615
	USR2	0.892	96.875	0.000	[0.873; 0.909]	0.796
	USR3	0.870	86.130	0.000	[0.849; 0.889]	0.757
	USR4	0.892	93.178	0.000	[0.872; 0.910]	0.796
UBA	UBA1	0.906	137.353	0.000	[0.892; 0.918]	0.821
	UBA2	0.889	89.605	0.000	[0.868; 0.907]	0.790
	UBA3	0.933	170.165	0.000	[0.921; 0.942]	0.870
UBI	UBI1	0.644	21.745	0.000	[0.582; 0.698]	0.415
	UBI2	0.717	31.313	0.000	[0.669; 0.760]	0.514
	UBI3	0.871	95.270	0.000	[0.852; 0.888]	0.759
	UBI4	0.882	94.904	0.000	[0.863; 0.899]	0.778
	UBI5	0.840	62.528	0.000	[0.812; 0.865]	0.706
	UBI6	0.660	20.846	0.000	[0.594; 0.719]	0.436
SAT	SAT1	0.890	96.808	0.000	[0.870; 0.906]	0.792
	SAT2	0.915	129.904	0.000	[0.900; 0.927]	0.837
	SAT3	0.883	78.411	0.000	[0.859; 0.903]	0.780

Construct	Items	Loading	T statistics	P Values	95% CI	Indicator Reliability
	SAT4	0.887	100.214	0.000	[0.869; 0.903]	0.787
	SAT5	0.838	67.605	0.000	[0.813; 0.861]	0.702
STU	STU1	0.852	71.531	0.000	[0.827; 0.874]	0.726
	STU2	0.919	141.506	0.000	[0.906; 0.931]	0.845
	STU3	0.895	113.443	0.000	[0.879; 0.910]	0.801
	STU4	0.922	137.669	0.000	[0.908; 0.934]	0.850
LOY	LOY1	0.808	56.005	0.000	[0.778; 0.834]	0.653
	LOY2	0.780	46.416	0.000	[0.745; 0.811]	0.608
	LOY3	0.766	41.484	0.000	[0.727; 0.800]	0.587
	LOY4	0.908	143.652	0.000	[0.895; 0.920]	0.824
	LOY5	0.905	143.288	0.000	[0.892; 0.917]	0.819
	LOY6	0.752	41.790	0.000	[0.715; 0.786]	0.566
	LOY7	0.720	37.222	0.000	[0.680; 0.756]	0.518

Note: CI= Confidence Intervals Bias Corrected.

6.3.1.2 Internal Consistency Reliability

After establishing indicators reliability on its associated constructs, the next step is assessing each construct's internal consistency reliability. The rationale for internal consistency is that the individual items or indicators of the scale should all be measuring the same construct and thus be highly intercorrelated (Hair *et al.*, 2019b). Cronbach's alpha (α), Rho_A (Dijkstra and Henseler, 2015), and composite reliability are the common measures to assess the construct's internal consistency, the minimum recommended value for these criteria is 0.70 (Hair *et al.*, 2019a). Composite reliability is preferred and more accurate than Cronbach's alpha because, in contrast to Cronbach's alpha, it weights the individual indicators in the calculations according to their loadings (in other words it considers that indicators are not equally reliable) (Hair *et al.*, 2019a, 2019b). Dijkstra and Henseler (2015) proposed rho_A as a more robust measure of construct reliability consistent with the PLS-SEM approach, rho_A values usually lies between Cronbach's alpha and the composite reliability.

Section 6.2.7 presented "an initial assessment of the constructs' internal consistency reliability using" Cronbach's alpha values through reliability analysis procedures in SPSS software, the same values were confirmed again using PLS algorithm producers in SmartPLS software (see Table 6.10). Additionally, as Table 6.10 shows all CR and rho_A values exceeded the recommended value of 0.70 and ranged from 0.889 to 0.960 for CR values and from 0.841 to 0.944 for rho_A values, which confirming good internal consistency reliability of the scales adopted in this study.

Table 6.10 Internal Consistency Reliability and Convergent Validity

	Internal consistency reliability			Convergent validity
	Cronbach's Alpha	rho_A	CR	AVE
USS	0.944	0.944	0.960	0.856
UPR	0.833	0.841	0.889	0.667
UDI	0.853	0.864	0.911	0.773
USR	0.883	0.893	0.919	0.741
UBA	0.895	0.898	0.935	0.827
UBI	0.865	0.894	0.899	0.601
SAT	0.929	0.930	0.946	0.779
STU	0.919	0.919	0.943	0.805
LOY	0.911	0.923	0.929	0.653

Note: CR= Composite Reliability; AVE=Average Variance Extracted.

6.3.1.3 Convergent Validity

The third aspect of evaluating the reflective measurement is assessing the convergent validity of each construct measure. Convergent validity is "the extent to which the construct converges to explain the variance of its items, also referred to as communality" (Hair *et al.*, 2019b). Average Variance Extracted (AVE) metric is the common measure to assess convergent validity, AVE is obtained by averaging the squared loadings of all indicators (i.e., indicator reliabilities) (Hair *et al.*, 2020). Convergent validity is established when the AVE value is equal or greater than 0.5, which indicates that the construct explains at least 50% of the variance of its items. Table 6.10 also shows that the AVE values for each construct above the cutoff point of 0.50 and ranged between 0.653 and 0.856, indicating that convergent validity is well established for all constructs in the measurement model.

6.3.1.4 Discriminant Validity

The last recommended aspect of the reflective measurement model assessment addresses the discriminant validity. Discriminant validity measures the distinctiveness of a construct from other constructs in the structural model, the establishment of discriminant validity means that each construct's measure is unique and captures some phenomena other constructs' measures do not (Hair *et al.*, 2019a, 2019b, 2020). Two traditional methods to assess for the establishment of discriminant validity. The first method by using Fornell and Larcker's (1981) criterion in which the square root of the AVE for each construct should be higher than its highest correlation with any other. The logic of this method is the construct should explain more of the variance in its item measures than it shares with another construct (Hair *et al.*, 2019b). The second way by using Chin's (1998) criterion in which the indicators' loadings on its assigned construct should be higher than that on any other construct.

Recently, Henseler *et al.* (2015) argue that the Fornell-Larcker criterion does not perform well and proposed the Heterotrait-Monotrait (HTMT) ratio of the correlations as the more robust method for assessing discriminant validity with PLS-SEM. The HTMT can be defined as "the mean of all correlations of indicators between different constructs relative to the mean of the average correlations of indicators for the same construct" (Hair *et al.*, 2019a, p.788). Henseler *et al.* (2015) propose a threshold value of 0.90 for the HTMT. That is, an HTMT value above 0.90 suggests a lack of discriminant validity. Additionally, the confidence intervals of the HTMT values through bootstrapping procedures are recommended to further assess HTMT ratios and discriminant validity, a confidence interval containing the value 1 indicates a lack of discriminant validity (Hair *et al.*, 2019a, 2020).

In this study, the three methods were followed to assess the establishment of discriminant validity. Firstly, the Fornell-Larcker criterion was used. The results of the Fornell–Larcker test are shown in Table 6.11and show that all of the AVEs are higher than the squared correlations of each construct, which indicates that discriminant validity is established. Secondly, Chin's (1998) criterion was used by comparing indicators loadings and cross-loadings (see Table F.1 in Appendix F for the cross-loadings matrix). As Table F.1 shows each construct relates more powerfully to its own indicators than to others, which gives further support to the constructs' discriminant validities. Finally, the HTMT approach was used. The results for the HTMT test are shown in Table 6.12. All ratios are below the recommended threshold value of 0.90 (the highest ratio of the HTMT value is 0.842 between the constructs of LOY and SAT), which providing strong evidence of the constructs' discriminant validities. Additionally, the confidence intervals of the HTMT values were estimated using bootstrapping procedures (see Table F.2 in Appendix F). The results showed that none of the estimated confidence intervals contains a value of 1, which provides additional evidence of the establishment of the discriminant validity.

Table 6.11 Discriminant Validity Fornell-Larcker Criterion

	LOY	SAT	STU	UBA	UBI	UDI	UPR	USR	USS
LOY	**0.808**								
SAT	0.786	**0.883**							
STU	0.674	0.754	**0.897**						
UBA	0.719	0.741	0.708	**0.909**					
UBI	0.618	0.574	0.485	0.497	**0.775**				
UDI	0.552	0.482	0.491	0.651	0.368	**0.879**			
UPR	0.643	0.601	0.607	0.731	0.406	0.688	**0.817**		
USR	0.536	0.611	0.682	0.617	0.430	0.478	0.480	**0.861**	
USS	0.571	0.653	0.632	0.728	0.456	0.429	0.549	0.606	**0.925**

Note: The diagonal elements in bold are the square root of AVE values and the non-diagonal values are the correlations between constructs.

Table 6.12 Discriminant Validity Heterotrait-Monotrait Ratio (HTMT)

	LOY	SAT	STU	UBA	UBI	UDI	UPR	USR	USS
LOY									
SAT	0.842								
STU	0.727	0.812							
UBA	0.785	0.811	0.777						
UBI	0.682	0.621	0.523	0.544					
UDI	0.624	0.539	0.553	0.741	0.412				
UPR	0.730	0.679	0.685	0.846	0.454	0.812			
USR	0.585	0.667	0.749	0.687	0.473	0.552	0.554		
USS	0.611	0.697	0.677	0.788	0.491	0.473	0.617	0.659	

6.3.2 Assessment of the Structural Model

Once the reliability and validity of the measurement model were verified using the CCA process, the second stage of PLS-SEM evaluation is the assessment of the structural model to examine interdependent relationships among the constructs. According to Hair *et al.* (2020), six steps are recommended for assessing the structural model: (1) collinearity assessment, (2) evaluate the size and significance of path coefficients, (3) assessment coefficient of determinations (R^2) of endogenous variables, (4) examine effect size (f^2), and (5) evaluate the predictive relevance (Q^2) (steps 3 to 5 relates to the assessment of model's in-sample predictive ability), and (6) assess the model's out-of-sample predictive power by using the PLSpredict procedure.

6.3.2.1 Collinearity Assessment

The first step in assessing the structural model is to examine the exogenous constructs for multicollinearity to make sure it does not bias the regression results. Section 6.2.4 presented a brief discussion of the issue of multicollinearity and a full collinearity test results among all constructs (see Table 6.6), which revealed that multicollinearity was not a problem in this study. In the context of PLS-SEM, SmartPLS software produces a metric for VIF values of all exogenous constructs in the structural model which is the subject for the assessment of this step. In this study, there are five sets of the exogenous constructs: (1) UDI, UPR, USR, and USS as exogenous (i.e., predictor) constructs of UBA; (2) UDI, UPR, USR, USS, and UBA as exogenous constructs of UBI; (3) UBA and UBI as constructs of SAT; (4) UBA, UBI, and SAT as exogenous constructs of STU; and (5) UBA, UBI, SAT, and STU as exogenous constructs of LOY. All of the VIF values of the exogenous constructs are presented in Table 6.13.

Previous literature referred to various values for the acceptable VIF level, for instance, Field (2018) mentioned that a VIF greater than 10 is a cause for concern. According to Kock and Lynn (2012) and Kock (2015), VIF values should be lower than 5, or ideally below 3.3. Recent research argues that "VIF values above 5 are indicative of probable collinearity issues among the predictor constructs, but collinearity problems can also occur at lower VIF values of 3 to 5" (Hair *et al.*, 2019a, 2019b, 2020). Thus, ideal VIF values are those that are close to 3 and lower (Hair *et al.*, 2019b, 2020).

As Table 6.13 shows all VIF values are clearly below the threshold of 5 or 3 except for two values (3.162 and 3.662) that were slightly exceeding 3 but were deemed acceptable because of these values still close to the ideal VIF value of 3. Thus, collinearity among exogenous constructs is not a critical issue in the structural model, and we can continue examining the results report.

Table 6.13 Collinearity Assessment for the Structural Model

	LOY	SAT	STU	UBA	UBI	UDI	UPR	USR	USS
LOY									
SAT	3.162		2.536						
STU	2.623								
UBA	2.531	1.328	2.256		3.661				
UBI	1.522	1.328	1.517						
UDI				2.010	2.164				
UPR				2.244	2.604				
USR				1.744	1.811				
USS				1.833	2.378				

6.4.2.2 Evaluate the Size and Significance of Path Coefficients

Given that multicollinearity is not an issue among exogenous constructs, the next step is to examine the size and significance of the path coefficients to test the hypothesized relationships among the constructs. The path coefficients (i.e., correspond to standardized betas in regression analysis) are standardized values of the structural relationships between the constructs in the model, which typically fall in the range of -1 and +1, path coefficients values approaching the absolute value 1 indicate the strength of the predicting power of the exogenous constructs on endogenous constructs, and the closer the values are to 0 the weaker they are in predicting endogenous constructs (Hair *et al.*, 2020).

To obtain the path coefficients values and their significance levels a bias-corrected accelerated (BCa) bootstrapping procedure with 5,000 bootstraps, no sign changes, a two-tailed test, and at a significance level 0.05 was performed. Table 6.14 shows the path coefficients, *t* values, significance levels (p values), 95 percent confidence intervals, and hypothesis testing decision. Also, Figure 6.9, displays the path coefficients, *t* values for all hypothesized direct relationships. All of the hypothesized direct relationships are statistically significant except three hypotheses (H5: UPR → UBI; H7: UDI → UBI; H14: UBI → STU). Based on these results, the following aspects were to be noted:

Hypothesis 1 predicts that UBA is positively related to UBI. The results revealed a significant positive relationship between UBA and UBI ($\beta = 0.220$, $t = 3.561$, $p = 0.000$, 95% CI [0.099; 0.339]). Therefore, there is statistical support for this hypothesis, and it can be concluded that UBA has a positive effect on UBI.

Hypotheses 2 and 3 propose that USS is an antecedent of UBA and UBI. The results showed that USS had a significant positive effect on both UBA (H2: $\beta = 0.386$, $t = 13.314$, $p = 0.000$, 95% CI [0.327; 0.442]) and UBI (H3: $\beta = 0.153$, $t = 3.048$, $p = 0.002$, 95% CI [0.058; 0.253]). Therefore, there is statistical support for both hypotheses, and it can be concluded that USS has a positive effect on UBA and UBI.

Hypotheses 4 and 5 predicts that UPR is positively related to UBA and UBI. The results showed that UPR had a significant positive effect only on UBA (H4: $\beta = 0.313$, $t = 9.487$, $p = 0.000$, 95% CI [0.247; 0.377]), while the effect of UPR on UBI were not significant (H5: $\beta = 0.054$, $t = 1.057$, $p = 0.291$, 95% CI [-0.046; 0.157]). Therefore, H4 was supported, while H5 was not supported and it can be concluded that UPR has a positive effect on UBA only.

Hypotheses 6 and 7 proposes that UDI is positively related to UBA and UBI. The results revealed a significant positive relationship between UDI and UBA (H6: $\beta = 0.205$, $t = 7.088$, $p = 0.000$, 95% CI [0.148; 0.261]), while the relationship between UDI was not significant (H7: $\beta = 0.049$, $t = 1.073$, $p = 0.284$, 95% CI [-0.039; 0.142]). Therefore, there is statistical support for H6, but H7 is not, and it can be concluded that UDI has a positive effect on UBA only.

Hypotheses 8 and 9 proposes that USR is an antecedent of UBA and UBI. As hypothesized the results showed statistical support for both hypotheses as USR had a significant positive effect on UBA (H8: $\beta = 0.135$, $t = 5.063$, $p = 0.000$, 95% CI [0.083; 0.188]) and UBI (H9: $\beta = 0.151$, $t = 3.557$, $p = 0.000$, 95% CI [0.067; 0.235]).

Hypotheses 11 and 12 postulates that UBA and UBI are positively related to SAT. As hypothesized the results revealed a significant positive relationship between both of UBA (H11: $\beta = 0.605$, $t = 24.465$, $p = 0.000$, 95% CI [0.557; 0.652]) and UBI (H12: $\beta = 0.274$, $t = 10.213$, $p = 0.000$, 95% CI [0.221; 0.326]) and SAT. Hence, there are statistical support for both hypotheses, and it can be concluded that UBA and UBI has a positive effect on SAT.

Hypotheses 13 to 15 predicts that UBA, SAT, and UBI are positively related to STU. The results showed strong positive relationship between UBA and STU (H13: $\beta = 0.324$, $t = 8.601$, $p = 0.000$, 95% CI [0.249; 0.396]) and between SAT and STU (H15: $\beta = 0.489$, $t = 12.963$, $p = 0.000$, 95% CI [0.413; 0.561]), while the relationship between UBI and STU were very weak and non-significant (H14: $\beta = 0.044$, $t = 1.480$, $p = 0.139$, 95% CI [-0.014; 0.103]). Thus, there are statistical support for H13 and H15, while H14 is not supported,

Hypotheses 16 to 19 proposes that UBA, SAT, STU, and UBI are antecedents of LOY. The results showed statistical support for all of these hypotheses as UBA (H16: $\beta = 0.241$, $t = 6.651$, $p = 0.000$, 95% CI [0.167; 0.310]), UBI (H17: $\beta = 0.217$, $t = 7.797$, $p = 0.000$, 95% CI [0.164; 0.274]), SAT (H18: $\beta = 0.424$, $t = 11.327$, $p = 0.000$, 95% CI [0.353; 0.498]), STU (H19: $\beta = 0.079$, $t = 2.244$, $p = 0.025$, 95% CI [0.008; 0.146]), and had a significant positive effect on LOY.

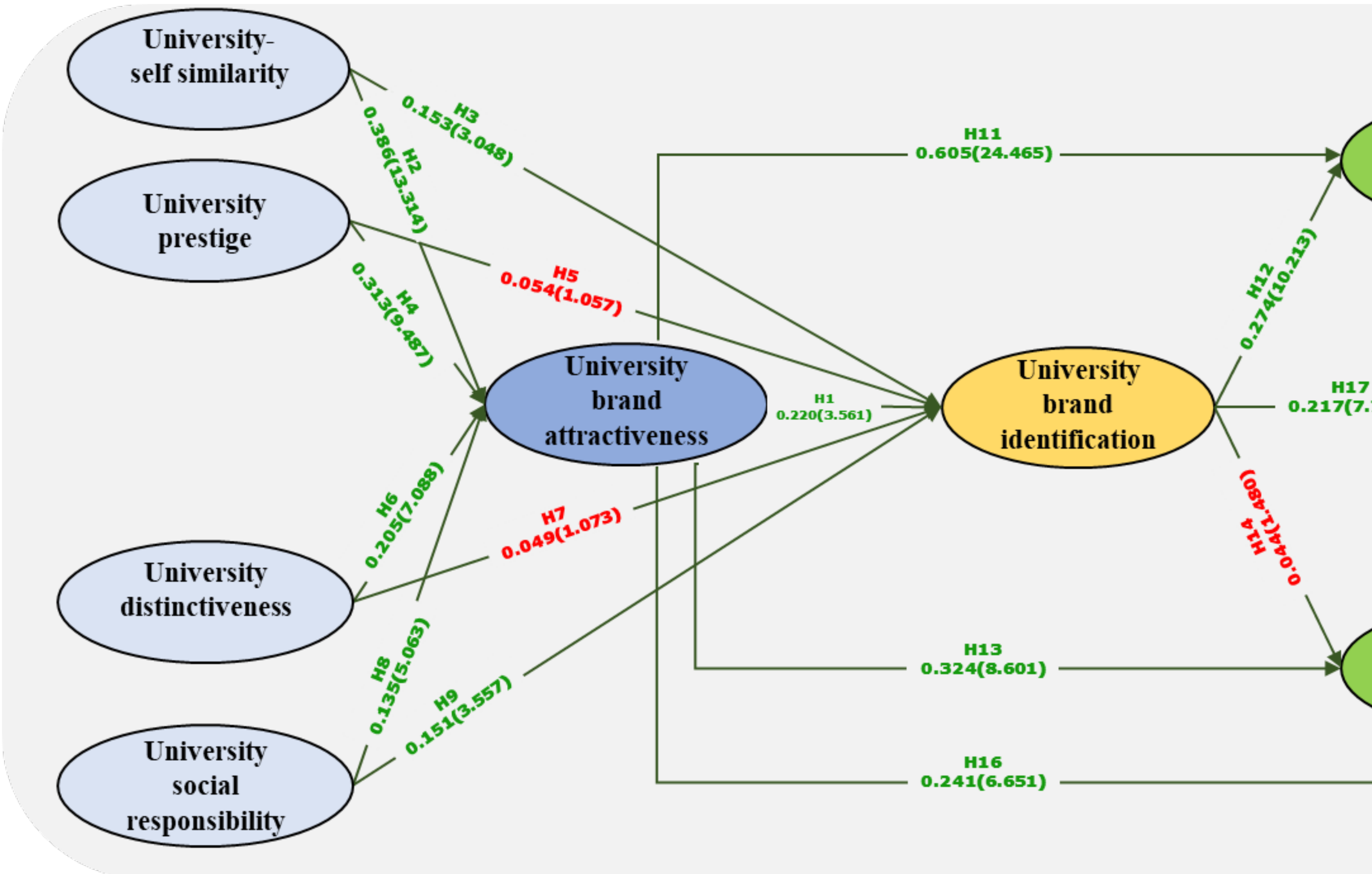
Table 6.14 Structural Model Path coefficients and Significance Testing (Hypothesis T

Hypotheses	Structural Relationships	Path coefficients (β)	T statistics	P Values	95% Confi interva
H1	UBA → UBI	0.220	3.561	**0.000**	[0.099; 0.3
H2	USS → UBA	0.386	13.314	**0.000**	[0.327; 0.4
H3	USS → UBI	0.153	3.048	**0.002**	[0.058; 0.2
H4	UPR → UBA	0.313	9.487	**0.000**	[0.247; 0.3
H5	UPR → UBI	0.054	1.057	**0.291**	[-0.046; 0
H6	UDI → UBA	0.205	7.088	**0.000**	[0.148; 0.2
H7	UDI → UBI	0.049	1.073	**0.284**	[-0.039; 0
H8	USR → UBA	0.135	5.063	**0.000**	[0.083; 0.1
H9	USR → UBI	0.151	3.557	**0.000**	[0.067; 0.2
H11	UBA → SAT	0.605	24.465	**0.000**	[0.557; 0.6
H12	UBI → SAT	0.274	10.213	**0.000**	[0.221; 0.3
H13	UBA → STU	0.324	8.601	0.000	[0.249; 0.3
H14	UBI → STU	0.044	1.480	**0.139**	[-0.014; 0
H15	SAT → STU	0.489	12.963	**0.000**	[0.413; 0

Hypotheses	Structural Relationships	Path coefficients (β)	T statistics	P Values	95% Confi... interva...
H16	UBA → LOY	0.241	6.651	**0.000**	[0.167; 0.3
H17	UBI → LOY	0.217	7.797	**0.000**	[0.164; 0.2
H18	SAT → LOY	0.424	11.327	**0.000**	[0.353; 0.4
H19	STU → LOY	0.079	2.244	**0.025**	[0.008; 0.1

Notes: ***Significance level is 99.9%, $p < 0.001$, t value ±3.21; **significance level is 99%, $p < 0.01$, t value ± 2.58
t value ± 1.96.

Figure 6.9 Structural Model - Path Coefficients and t-Values



6.3.2.3 Coefficient of Determinations (R^2)

The next steps in assessing the structural model are to examine the predictive ability of the structural model. This process begins by examining the coefficient of determination (*R^2* values) of the endogenous constructs. The *R^2* is a measure of in-sample prediction, which measures the explained variance in each of the endogenous constructs by the assigned exogenous constructs, *R^2* values range from 0 to 1, the higher *R^2* values indicating a greater explanatory power of the exogenous constructs (Hair *et al.*, 2019b). Fundamentally, the *R^2* value of a specific exogenous construct is a function of the number of predictor constructs (exogenous constructs) assigned– the greater the number of predictor constructs, the higher the *R^2* Hair *et al.* (2019b).

There is no agreement among scholars on what constitutes adequate size for *R^2* values, for instance, Cohen (1988) suggested that *R^2* values of 0.26, 0.13, or 0.02, can be respectively described as substantial, moderate, or weak. Falk and Miller (1992) argue that *R^2* values equal to or greater than 0.10 are deemed to be adequate. Hair *et al.* (2019b) suggested that *R^2* values above 0.25 and up to 0.50 are considered weak; values of 0.50 and up to 0.75 are moderate; values 0.75 and above are substantial. Recently, Hair *et al.* (2020) argue that the adequate size for the *R^2* depends on the context of the research and typically varies from one discipline to another, thus Hair and his colleagues recommended researchers to use the results of previous related studies and models of similar complexity as a guideline in interpreting the *R^2* values in their research.

Tables 6.15 summarize the *R^2* values and the adjusted *R^2* values for all of the endogenous constructs in the structural model. As indicated in Table 6.15 the *R^2* value of UBA is the highest of (0.727) which indicates that 72.7% of the variance for UBA is explained by USS, UPR, UDI, and USR. The *R^2* value of UBI is (0.284) which indicates USS, UPR, UDI, USR, and UBA accounted for 28.4% of the variance in UBI. Additionally, the *R^2* values of SAT, STU, and LOY are (0.606; 0.619; 0.694) respectively, which indicates that 60.6% of the variance in SAT is explained by the UBA and UBI; 61.9% of the variance in STU is explained by the UBA, UBI, and SAT; and finally, 60.9% of the variance in LOY is explained by the UBA, UBI, SAT, and STU. The *R^2* values for all of the endogenous constructs in the structural model suggest that the structural model exhibits adequate explanatory power. Although the *R^2* values of UBI are rather weak, it is consistent with the similar previous studies conducted on this research topic (see Table 6.16).

Table 6.15 R^2 for the Endogenous Constructs

	R Square	R Square Adjusted
UBA	0.727	0.725
UBI	0.284	0.280
SAT	0.606	0.605
STU	0.619	0.617
LOY	0.694	0.692

Table 6.16 R^2 for UBI in the Relevant Literature

Author (S) (Year)	Predictor constructs	R Square
Mael and Ashforth (1992)	<u>*University antecedents*</u> – University distinctiveness – University prestige – Interorganizational competition – Intra-organizational competition <u>*Individual antecedents*</u> – Tenure with the organization – The recency of membership – Number of comparable organizations joined – Existence of a mentor – Satisfaction with the organization – Sentimentality	0.350
Porter *et al.* (2011)	– Admission selectivity rating – Perceived academic prestige – Athletic category – Perceived athletic prestige – The presence of the university football teams – Student university involvement – Event attendance	0.307
Pinna *et al.* (2018)	– University brand personality – Self-brand connection – University brand prestige – University brand knowledge	0.301

6.3.2.4 Effect Size (f^2)

The next step in assessing the structural model is examining the effect sizes (f^2), which is the second criterion of in-sample prediction criteria to assess the predictive ability of the structural model. The effect size represents the change in the R^2 value of a specific endogenous construct when a specific exogenous construct is omitted from the structural model (Hair *et al.*, 2019a). The f^2 metric is useful to determine if eliminating a predictor construct from the structural model has a substantial impact on the endogenous constructs. As a rule of thumb, f^2 values above 0.02 and up to 0.15 are considered small; values of 0.15 and up to 0.35 are medium; and values 0.35 and above are large effects (Cohen, 1988). The f^2 metric is useful to determine if eliminating a predictor construct from the structural model has a substantive impact on the endogenous constructs.

Table 6.17 exhibits the f^2 effect sizes for the predictor constructs on its respective endogenous constructs. The columns are results for the five endogenous constructs: UBA, UBI, SAT, STUA, and LOY. The predictor constructs are shown on the left, and the path coefficient for each predictor construct is shown first under its corresponding endogenous constructs, and then beside are the f^2 effect sizes. As Table 6.17 shows, both USS and UPR has a medium effect size (0.298; 0.160) on UBA, while both UDI and USR has a small effect size (0.077; 0.038) on UBA. The effect size of USS, USR, and UBA on UBI is rather small (0.015; 0.018; 0.018), while there was no effect size for both UPR and USR on UBI (0.002; 0.002). UBA has a large effect size of (0.700) on SAT and a small effect size on both STU and LOY (0.122; 0.075). Additionally, UBI has a small effect size on both SAT and LOY (0.143; 0.101) and no effect on STU (0.003). SAT has a medium effect size on both STU (0.247) and LOY (0.185).

Table 6.17 Path Coefficients and f^2 Effect Sizes

Predictor	Endogenous Constructs									
	UBA		UBI		SAT		STU		LOY	
	β	f^2	β	f^2	β	f^2	β	f^2	β	f^2
USS	0.386	0.298	0.153	0.015						
UPR	0.313	0.160	0.054	0.002						
UDI	0.205	0.077	0.049	0.002						
USR	0.135	0.038	0.151	0.018						
UBA			0.220	0.018	0.605	0.700	0.324	0.122	0.241	0.075
UBI					0.274	0.143	0.044	0.003	0.217	0.101
SAT							0.489	0.247	0.424	0.185
STU									0.079	0.008

6.4.2.5 Predictive Relevance (Q^2)

The fifth step in evaluating the structural model is to assess the Q^2 for the endogenous construct in the structural model, which is the third metric of in-sample prediction criteria to assess the predictive ability of the structural model. The Q^2 values are obtained by using the cross-validated redundancy method through the blindfolding procedure. According to Hair *et al.* (2019b), Q^2 values should be larger than zero for a specific endogenous construct to indicate the predictive relevance of the structural model for that construct.

Accordingly, the blindfolding procedure was executed with the default settings to obtain the Q^2 values for the endogenous construct in the structural model, the results are presented in Table 6.18. The results show that all Q^2 values are more than zero and range from 0.163 to 0.595, indicating that the structural model has meaningful and satisfactory predictive relevance for all of the endogenous constructs.

Table 6.18 Cross Validated Redundancy (Q^2)

	SSO	SSE	Q^2 (=1-SSE/SSO)
UBA	2316.000	937.688	0.595
UBI	4632.000	3874.729	0.163
SAT	3860.000	2053.344	0.468
STU	3088.000	1574.726	0.490
LOY	5404.000	2991.979	0.446

6.3.2.6 PLSpredict (Out-of-Sample Prediction)

Although previous steps are sufficient for evaluating the structural model, recent PLS-SEM methodological studies suggest assessing the model's out-of-sample prediction power as another step for further validation for the structural model (e.g., Hair *et al.*, 2019b, 2020; Shmueli *et al.*, 2019). The approach to assess out-of-sample prediction involves two stages: first estimating the model on an analysis (i.e. training) sample; the second stage is to use the results of that model to predict other data in a second separate holdout sample (Hair *et al.*, 2020). SmartPLS software has the option of PLSpredict which executes this process automatically. PLSpredict first randomly splits the total sample into subgroups that are equal in size, each subgroup is called a fold and the number of subgroups is k (the default setting is k=10), the method then combines (k – 1) subgroups into a single analysis sample that is used to predict the remaining subgroup (Shmueli *et al.*, 2019). In interpreting PLSpredict results, the main focus should be on the model's key endogenous construct, and not the prediction errors for all endogenous constructs indicators (Hair *et al.*, 2019b, 2020). To evaluate the results, the Q^2_predict values of the PLS analysis should be evaluated first, which should be above zero to make sure that the prediction errors of the PLS-SEM results were smaller than the prediction errors of simply using mean values, then the root mean squared error (RMSE) of PLS analysis are compared to those obtained by a linear regression model (LM) (Hair *et al.*, 2020; Shmueli *et al.*, 2019).

Accordingly, PLSpredict analysis with the default settings (k=10) was performed to evaluate the out-of-sample predictive power of the structural model. Table 6.19 shows the results of PLS predict analysis for all of the endogenous construct in the structural model, but the focus should be on the key endogenous construct which in this case the LOY construct. As shown in Table 6.19, the Q^2_predict values for all of the indicators of the LOY construct (LOY1-LOY7) were larger than zero and range from 0.217 to 0.441, thereby indicating that the prediction errors of the PLS-SEM results were smaller than the prediction errors of simply using mean values. Additionally, with respect to RMSE values, three indicators (LOY3; LOY6; LOY6) in the PLS-SEM analysis yielded lower prediction errors compared to the LM benchmark, which indicates that the model has a medium level of out-of-sample predictive power based on the guidelines proposed by Shmueli *et al.* (2019).

Finally, the global model fit was verified through two criteria; the standardized root means square residual (SRMR) index and the goodness-of-fit (GoF) index. The SRMR for the model is 0.066, which is below the critical value of 0.085 (Henseler *et al.,* 2016), indicates that the model has good explanatory power. Additionally, GoF has been suggested as a global fit measure for PLS path modeling, GoF can be defined as the geometric mean of the average communality and average R (for endogenous constructs) (Tenenhaus *et al.*, 2005; Wetzels *et al.*, 2009). The calculated GoF is 0.66 ($\mathrm{GOF} = \sqrt{\overline{AVE} * \overline{R^2}}$), which exceeds the cut-off value of 0.36 for large effect sizes of R2 suggested by Wetzels *et al.* (2009). Hence, the model has a very high degree of goodness-of-fit and deem reliable. However recent PLS-SEM methodological studies argue that global model fit indices such as SRMR and GoF should be considered with extreme caution (e.g., Hair *et al.*, 2019b, 2020; Shmueli *et al.*, 2019).

Table 6.19 PLSpredict Results Based on Assessing RMSE Values

		PLS		LM	$RMSE_{PLS}$ - $RMSE_{LM}$
		RMSE	Q^2_predict	RMSE	
UBA	UBA1	0.893	0.629	0.844	0.049
	UBA2	1.129	0.524	1.081	0.048
	UBA3	0.868	0.638	0.868	0
UBI	UBI1	1.715	0.116	1.722	-0.007
	UBI2	1.923	0.127	1.950	-0.027
	UBI3	1.527	0.241	1.519	0.008
	UBI4	1.643	0.224	1.639	0.004
	UBI5	1.678	0.178	1.685	-0.007
	UBI6	1.805	0.024	1.773	0.032
SAT	SAT1	1.194	0.431	1.172	0.022
	SAT2	1.259	0.442	1.254	0.005
	SAT3	1.326	0.370	1.316	0.010
	SAT4	1.191	0.414	1.177	0.014
	SAT5	1.341	0.404	1.320	0.021
STU	STU1	1.132	0.457	1.036	0.096
	STU2	1.145	0.411	1.088	0.057
	STU3	1.248	0.412	1.193	0.055
	STU4	1.152	0.422	1.103	0.049
LOY	LOY1	1.463	0.360	1.462	0.001
	LOY2	1.688	0.292	1.685	0.003
	LOY3	1.524	0.277	1.541	**-0.017**
	LOY4	1.288	0.441	1.269	0.019
	LOY5	1.317	0.437	1.297	0.020
	LOY6	1.616	0.243	1.620	**-0.004**
	LOY7	1.615	0.217	1.627	**-0.012**

6.3.3 Advanced Analyses

The last stage in PLS-SEM assessment procedures is the advanced analyses related to mediation analysis, moderation analysis, multigroup analysis, and checking PLS-SEM results' robustness to support the validity of statistical conclusions (Hair *et al.,* 2020). Given that there is no hypothesized moderation relationship in this study, the next sections present the advanced analyses related mediations analysis to test the hypothesized mediation relationships and then the assessment for the heterogeneity to checking the PLS-SEM results' robustness.

6.3.3.1 Mediation Analysis

The hypothesized mediation relationships (H10; H20; H21) were tested using the bootstrapping approach suggested by Preacher and Hayes (2004; 2008) along with the guidelines and procedures suggested by Zhao *et al.* (2010) and Nitzl *et al.* (2016) as illustrated (see Figure 5.6 in the previous chapter). To obtain the indirect effects and their significance levels a bias-corrected accelerated (BCa) bootstrapping procedure with 5,000 bootstraps, no sign changes, a two-tailed test, and a significance level 0.05 was performed. Table 6.20 summarizes the bootstrapping results for the relationships among constructs. The direction of the relationship between the constructs are shown on the left, then the path coefficients, t statistics, and the p values for the total and direct effects are shown first. Column four shows the bootstrapping results for the indirect effects and the last column shows the decision of the mediation relationship. Based on these results, the following aspects were to be noted:

Hypothesis 10a proposes that UBA mediates the relationship between USS and UBI. The results showed that the indirect effect of USS on UBI via UBA was significant (H10a: USS → UBA → UBI: $\beta = 0.085$, $t = 3.447$, $p = 0.001$, 95% CI [0.037; 0.133]) and also the direct effect was significant (H3: USS→UBI: $\beta = 0.153$, $t = 3.048$, $p = 0.002$, 95% CI [0.058; 0.253]). According to the guidelines suggested by Zhao *et al.* (2010) (see Figure 5.6), these results demonstrate that UBA represents complementary mediation of the relationship from USS to UBI, thus supporting H10a.

Hypothesis 10b proposes that UBA mediates the relationship between UPR and UBI. The results revealed that the indirect effect of UPR on UBI via UBA was significant (H10b: UPR → UBA → UBI: $\beta = 0.069$, $t = 3.294$, $p = 0.001$, 95% CI [0.030; 0.113]), but the direct effect was not significant (H5: UPR → UBI: $\beta = 0.054$, $t = 1.057$, $p = 0.291$, 95% CI [-0.046; 0.157]), these results indicate that UBA fully mediates the UPR to UBI relationship, thereby supporting H10b.

Hypothesis 10c proposes that UBA mediates the relationship between UDI and UBI. The results showed that the indirect effect of UDI on UBI via UBA was significant (H10c: UDI → UBA → UBI: $\beta = 0.045$, $t = 3.105$, $p = 0.002$, 95% CI [0.018; 0.075]), but the direct effect was not significant (H7: UDI → UBI: $\beta = 0.049$, $t = 1.073$, $p = 0.284$, 95% CI [-0.039; 0.142]), these results indicate that UBA fully mediates the UDI to UBI relationship, thereby H10c was supported.

Hypothesis 10d proposes that UBA mediates the relationship between USR and UBI. The results showed that the indirect effect of USR on UBI via UBA was significant (H10d: UDI → UBA → UBI: $\beta = 0.030$, $t = 2.985$, $p = 0.003$, 95% CI [0.012; 0.051]) and also the direct effect was significant (H9: USR→UBI: $\beta = 0.151$, $t = 3.557$, $p = 0.000$, 95% CI [0.067; 0.235]), these results demonstrate that UBA represents complementary mediation of the relationship from USR to UBI, thereby supporting H10d.

Hypothesis 20a proposes that UBI mediates the relationship between UBA and SAT. The results showed that the indirect effect of UBA on SAT via UBI was significant (H20a: UBA → UBI → SAT: $\beta = 0.060$, $t = 3.523$, $p = 0.000$, 95% CI [0.027; 0.093]) and also the direct effect was significant (H11: UBA → SAT: $\beta = 0.605$, $t = 24.465$, $p = 0.000$, 95% CI [0.557; 0.652]), these result indicate that UBI represents complementary mediation of the relationship from UBA to SAT, hence H20a was supported.

Hypothesis 20b proposes that UBI mediates the relationship between UBA and STU. The results showed that the indirect effect of UBA on STU via UBI was not significant (H20b: UBA → UBI → STU: $\beta = 0.010$, $t = 1.426$, $p = 0.154$, 95% CI [-0.002; 0.025]), but the direct effect was significant (H13: UBA → STU: $\beta = 0.324$, $t = 8.601$, $p = 0.000$, 95% CI [0.249; 0.396]), these results demonstrate that UBI didn’t have a mediation role in the relationship from UBA to STU, therefor H20b was not supported.

Hypothesis 20c proposes that UBI mediates the relationship between UBA and LOY. The results showed that the indirect effect of UBA on LOY via UBI was significant (H20c: UBA → UBI → LOY: $\beta = 0.048$, $t = 3.387$, $p = 0.001$, 95% CI [0.021; 0.077]) and also the direct effect was significant (H16: UBA → LOY: $\beta = 0.241$, $t = 6.651$, $p = 0.000$, 95% CI [0.167; 0.310]), these results demonstrate that UBI represents complementary mediation of the relationship from UBA to LOY, thereby supporting H20c.

Hypotheses 21a-21c proposes that the relationship between UBI and LOY mediates by SAT (H21a), STU (H21b), and SAT and STU sequentially (H21c). The results revealed that the indirect effect of UBI on LOY via SAT (H21a: UBI → SAT → LOY: $\beta = 0.116$, $t = 7.646$, $p = 0.000$, 95% CI [0.088; 0.147]) and via SAT and STU sequentially (H21c: UBI → SAT → STU → LOY: $\beta = 0.011$, $t = 2.148$, $p = 0.032$, 95% CI [0.001; 0.021]) were significant, while indirect effect via STU was not significant (H21b: UBI → STU → LOY: $\beta = 0.003$, $t = 1.138$, $p = 0.255$, 95% CI [-0.001; 0.011]). The results also showed that the direct effect of UBI on LOY was significant (H18: UBI → LOY: $\beta = 0.217$, $t = 7.797$, $p = 0.000$, 95% CI [0.164; 0.274]). Hence, these results demonstrate that both SAT only and SAT and STU sequentially represent complementary mediation of the relationship from UBI to LOY, whereas STU only didn't have a mediation role in the relationship between UBI and LOY.

To conclude the results showed all of the hypothesized indirect relationships are statistically significant except two paths (i.e., H20b: UBA → UBI → STU; H21b: UBI → STU → LOY). Additionally, the assessment of the other possible indirect relationships incorporated in the structural model revealed for other several significant indirect relationships. Firstly, SAT represents complementary mediation of the relationship from UBA to STU ($\beta = 0.296$, $t = 11.280$, $p = 0.000$, 95% CI [0.245; 0.348]) and also of the relationship from UBA to LOY ($\beta = 0.256$, $t = 10.214$, $p = 0.000$, 95% CI [0.209; 0.307]), but fully mediates the UBI to STU relationship ($\beta = 0.134$, $t = 8.111$, $p = 0.000$, 95% CI [0.103; 0.167]). Secondly, STU represents complementary mediation of the relationship of both from UBA to LOY ($\beta = 0.025$, $t = 2.132$, $p = 0.033$, 95% CI [0.003; 0.050]) and from SAT to LOY ($\beta = 0.038$, $t = 2.214$, $p = 0.027$, 95% CI [0.004; 0.073]). Furthermore, UBI and SAT sequentially represents complementary mediation of the relationship of both from UBA to STU ($\beta = 0.029$, $t = 3.339$, $p = 0.001$, 95% CI [0.013; 0.047]) and from UBA to LOY($\beta = 0.026$, $t = 3.360$, $p = 0.001$, 95% CI [0.011; 0.041]). Finally, SAT and STU sequentially represent complementary mediation of the relationship from UBA to LOY ($\beta = 0.023$, $t = 2.203$, $p = 0.028$, 95% CI [0.003; 0.044]).

Table 6.20 Mediation Analysis

	Total effects			Direct effects			Indirect effects			
	β	t-stat	p-val	β	t-stat	p-val		β	t-stat	p-va
USS → UBI	0.238	5.385	0.000	0.153	3.048	0.002	**H10a:** USS → UBA → UBI	0.085	3.447	0.00
UPR → UBI	0.123	2.570	0.010	0.054	1.057	0.291	**H10b:** UPR → UBA → UBI	0.069	3.294	0.00
UDI → UBI	0.095	2.151	0.032	0.049	1.073	0.284	**H10c:** UDI → UBA → UBI	0.045	3.105	0.00
USR → UBI	0.181	4.270	0.000	0.151	3.557	0.000	**H10d:** USR → UBA → UBI	0.030	2.985	0.00
UBA → SAT	0.665	25.054	0.000	0.605	24.465	0.000	**H20a:** UBA → UBI → SAT	0.060	3.523	0.00
UBA → STU	0.658	26.416	0.000	0.324	8.601	0.000	**H20b:** UBA → UBI → STU	0.010	1.426	0.15
							UBA → SAT → STU	0.296	11.280	0.00
							UBA → UBI → SAT → STU	0.029	3.339	0.00
UBA → LOY	0.622	19.598	0.000	0.241	6.651	0.000	**H20c:** UBA → UBI → LOY	0.048	3.387	0.00
							UBA → SAT → LOY	0.256	10.214	0.00

	Total effects			Direct effects			Indirect effects			
	β	t-stat	p-val	β	t-stat	p-val		β	t-stat	p-va
							UBA → STU → LOY	0.025	2.132	**0.03**
							UBA → UBI → SAT → LOY	0.026	3.360	**0.00**
							UBA → UBI → STU → LOY	0.001	1.136	**0.25**
							UBA → SAT → STU → LOY	0.023	2.203	**0.02**
							UBA → UBI → SAT → STU → LOY	0.002	1.901	**0.05**
UBI → LOY	0.347	12.231	**0.000**	0.217	7.797	**0.000**	**H21a:** UBI → SAT → LOY	0.116	7.646	**0.00**
							H21b: UBI → STU → LOY	0.003	1.138	**0.25**
							H21c: UBI → SAT → STU → LOY	0.011	2.148	**0.03**
UBI → STU	0.178	5.964	**0.000**	0.044	1.480	**0.139**	UBI → SAT → STU	0.134	8.111	**0.00**
SAT → LOY	0.462	12.988	**0.000**	0.424	11.327	**0.000**	SAT → STU → LOY	0.038	2.214	**0.02**

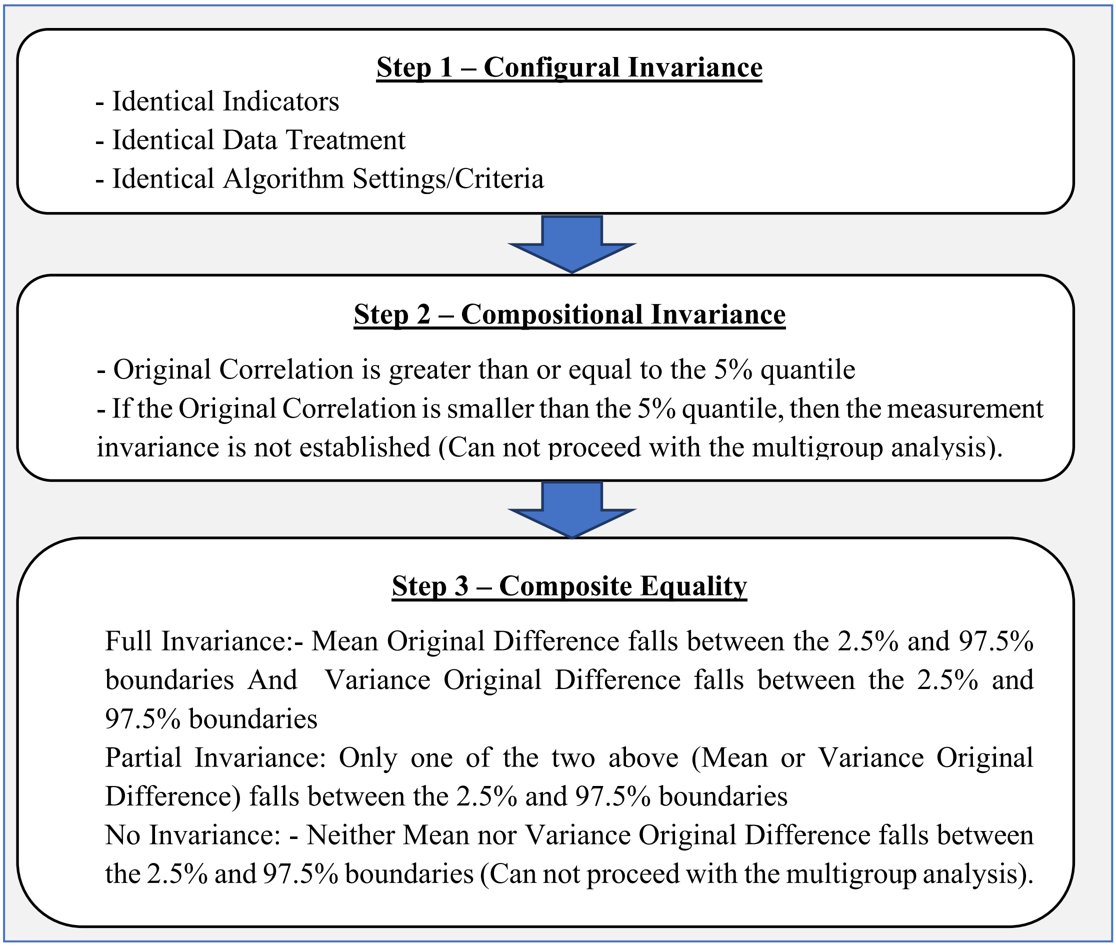
6.3.3.2 Observed Heterogeneity

What is meant by the heterogeneity and its two different forms (i.e., observed heterogeneity and unobserved heterogeneity) and how to assess for each of these two forms was explained previously (see section 5.7.3.2.3 in the previous chapter). As it was noted, the possible way to assess the observed heterogeneity is by using the observed characteristics of interest to partition the data into separate groups of observations and carry out model estimates for each group. In mathematical sense path coefficients based on different samples are almost always different, but the question is whether these differences are statistically significant, which can be estimated by conduct multi-group analysis. Given that PLS-SEM is a nonparametric approach, PLS methodological scholars proposed nonparametric multigroup techniques such as partial least squares based multigroup analysis (PLS-MGA) to evaluate the group difference based on PLS-SEM bootstrapping technique between two groups (Henseler *et al.*, 2009; Sarstedt *et al.*, 2011), and omnibus test of group differences (OTG) to compare between more than two groups.

In this study, students' gender is the observed variable that is of interest to assess for its effect on the heterogeneity in the data. Given that gender is a categorical variable and according to this variable the data could be divided into only two groups, PLS-MGA was followed to evaluate the significance of the difference between the two groups. PLS-MGA was performed using a three-step approach as described by Matthews (2017). The first step before performing PLS-MGA producers is generating data groups. In this regard, the data were divided into two groups consists of the male students' group (N=281) and the female students' group (N=487).

The second step is to assess measurement invariance (also referred to as equivalence), which is "a means of determining if the measurement model specify measures of the same attribute in the different group and considered a critical issue to ensure the resulting differences are the result of actual group-specific differences in the parameters and not measurement invariance" (Henseler *et al.,* 2016; Matthews, 2017). In this regard, Henseler *et al.* (2016) proposed a three-step procedure to analyze the measurement invariance of composite models (MICOM) summarized in Figure 6.10. The invariance of the configuration is established as the same indicators and configuration of the PLS algorithm were used for both groups.

Figure 6.10 The MICOM Procedure Steps



Source: Adapted from Matthews (2017, p. 231)

Table 6.21 presents the MICOM procedure results for the second and third steps. In the line of the guidelines presented in Figure 6.10, the MICOM results for the second step showed that compositional invariance has been established for all the constructs as the original correlations being equal to or greater than the 5.00% quantile correlations (shown in the 5% column). The MICOM results for the third step indicated a full invariance for the constructs of USS, UPR, USR, UBI, and LOY as both of mean difference and variance difference falls within its related 95% confidence interval and p-values greater than 0.05. For instance, the mean differences between male and female groups for the construct of USS was (-0.064) which falls within the 95% confidence interval (-0.151; 0.147) with p-values greater than 0.05 (0.392) also the variance differences between the two groups was (0.012) which falls within the 95%

confidence interval (-0.189; 0.179) with p-values greater than 0.05 (0.896). Whereas the MICOM results for the third step indicated partial invariance for the measurements of the constructs of UDI, UBA, SAT, and STU as these constructs pass only one of the confidence intervals tests for variance differences.

After confirming that the invariance is established, the third step is "to determine if the path coefficients of the theoretical models for the two groups are significantly different". To do that, PLS-MGA was performed using 5000 subsamples, the results are presented in Table 6.22. As noted in Table 6.14, the paths from UPR → UBI, UDI → UBI, and UBI → STU, which are not significant for the pooled data are not significant aslo either for male or female student groups.

The paths from USS → UBI and STU → LOY are significant for male students group ($\beta = 0.266$, $p = 0.000$ and $\beta = 0.142$, $p = 0.003$) and are not for female students group ($\beta = 0.079$, $p = 0.228$ and $\beta = 0.040$, $p = 0.393$). On the contrary, the path from USR → UBI is significant for female students' group ($\beta = 0.186$, $p = 0.001$) and is not for male students' group ($\beta = 0.078$, $p = 0.267$). However, the p values of the difference between the two groups didn't show support for significant differences between the two groups in any of the paths as the p values for all of these paths are higher than 0.05 and ranged between 0.057 to 0.987. Thus, observed heterogeneity does not significantly affect the data, which supports the results of the entire data set's analysis.

Table 6.21 MICOM Procedure Results for Measurement Inva

	Step2			*Step3-part1*- Equality of Means				*Step*
	Original Correlation	5.0%	*p*-Val	Mean Differences	2.5%	97.5%	*p*-Val	Varian Differen
USS	**1.000**	1.000	**0.215**	**-0.064**	-0.151	0.147	**0.392**	**0.012**
UPR	**1.000**	0.999	**0.578**	**0.110**	-0.150	0.153	**0.157**	**-0.140**
UDI	**0.999**	0.999	**0.041**	**0.238**	-0.147	0.149	**0.001**	**-0.130**
USR	**1.000**	0.999	**0.203**	**0.144**	-0.149	0.148	**0.057**	**0.013**
UBA	**1.000**	1.000	**0.412**	**0.161**	-0.147	0.148	**0.035**	**-0.033**
UBI	**0.999**	0.997	**0.318**	**0.068**	-0.152	0.147	**0.365**	**0.116**
SAT	**1.000**	1.000	**0.856**	**0.159**	-0.149	0.150	**0.034**	**-0.024**
STU	**1.000**	1.000	**0.981**	**0.218**	-0.147	0.151	**0.004**	**-0.020**
LOY	**1.000**	0.999	**0.261**	**0.082**	-0.150	0.148	**0.277**	**0.066**

Table 6.22 PLS-MGA Results for the Moderating Role of Gende

Paths	Gender						Diff
	Male (N=281)			Female (N=487)			
	β	T statistics	P Values	β	T statistics	P Values	Δ
UBA → UBI	0.189	2.059	**0.040**	0.258	3.152	**0.002**	-0.0
USS → UBA	0.384	7.744	**0.000**	0.395	10.916	**0.000**	-0.0
USS → UBI	0.266	3.718	**0.000**	0.079	1.206	**0.228**	0.1
UPR → UBA	0.307	5.643	**0.000**	0.309	7.185	**0.000**	-0.0
UPR → UBI	0.037	0.466	**0.641**	0.061	0.917	**0.359**	-0.0
UDI → UBA	0.159	3.883	**0.000**	0.234	5.535	**0.000**	-0.0
UDI → UBI	0.034	0.534	**0.593**	0.053	0.803	**0.422**	-0.0
USR → UBA	0.179	3.934	**0.000**	0.104	3.157	**0.002**	0.0
USR → UBI	0.078	1.110	**0.267**	0.186	3.393	**0.001**	-0.1
UBA → SAT	0.603	15.814	**0.000**	0.607	17.930	**0.000**	-0.0
UBI → SAT	0.302	7.283	**0.000**	0.255	6.862	**0.000**	0.0
UBA → STU	0.318	5.065	**0.000**	0.329	6.832	**0.000**	-0.0
SAT → STU	0.513	8.411	**0.000**	0.472	9.778	**0.000**	0.0

Paths	Gender						Diff
	Male (N=281)			Female (N=487)			
	β	T statistics	P Values	β	T statistics	P Values	Δ
UBI → STU	0.004	0.073	**0.941**	0.067	1.741	**0.082**	-0.0
UBA → LOY	0.195	3.643	**0.000**	0.271	5.553	**0.000**	-0.0
SAT → LOY	0.381	6.095	**0.000**	0.451	9.439	**0.000**	-0.0
STU → LOY	0.142	2.938	**0.003**	0.040	0.853	**0.393**	0.1
UBI → LOY	0.271	6.253	**0.000**	0.185	4.981	**0.000**	0.0

6.4.3.3 Unobserved Heterogeneity

FIMIX-PLS procedure was followed to evaluate whether the results are distorted by unobserved heterogeneity. FIMIX-PLS producing several information criteria that can guide the decision on how many segments to retain from the data. Sarstedt *et al.* (2011) offer a formal interpretation of these criteria and have evaluated the efficacy of these criteria across a broad range of data and model constellations. Their results suggest that researchers should jointly consider the modified Akaike information criterion with factor 3 (AIC3) and the consistent Akaike information criterion (CAIC). Whenever these two criteria indicate the same number of segments, the results likely point to the appropriate number of segments. Further researchers argue that AIC with factor 4 (AIC4) and Bayesian information criterion (BIC) also perform well in identifying the appropriate number of segments (e.g., Hair *et al.*, 2016; Sarstedt *et al.*, 2017). Overall, the smaller these criteria's value, the better the segmentation solution. Additionally, researchers should consider the complementary use of the entropy statistic (EN) criteria to indicate whether the partition is reliable or not, EN values of less than 0.50 indicate fuzzy segment memberships that prevent meaningful segmentation and limit the applied value of the solution (Sarstedt *et al.*, 2017; 2019). Besides information criteria and the EN, the segment sizes produced by FIMIX-PLS should be considered carefully, which need to meet minimum sample size requirements (Hair *et al.*, 2016; Sarstedt *et al.*, 2019). "If the metrics point to a one-segment solution or produce divergent results, researchers can conclude that unobserved heterogeneity does not significantly affect the data" (Sarstedt *et al.*, 2017, 2019).

Accordingly, the finite mixture PLS (FIMIX-PLS) procedure was performed to running robustness checks to increase the methodological rigor. The run of this procedure was carried out according to the suggestions made by Hair *et al.* (2016) and Sarstedt *et al.* (2019). The FIMIX-PLS was performed with the default settings of the number of iterations was set to 5000, the number of repetitions was set to 10, and the stop criterion (10-10 =10E -10). The process FIMIX-PLS procedure was initiated by assuming a one-segment solution. To determine the upper bound of the range of segment solutions to consider, the minimum sample size required to estimate each segment needs to be computed first. The results of a post hoc power analysis using G*Power software assuming an effect size of 0.15, 80% power level and four independent variables suggest that the minimum sample size requirement is 89. Thus, the greatest integer from dividing the sample size (i.e., 772) by the minimum sample size (i.e., 89) yields a theoretical upper bound of 8. Thus, the FIMIX-PLS procedure re-run for two to eight segments using the same settings as in the initial analysis, the results report for each run was saved in a separate file.

Table 6.23 shows the fit indices of each segment and the relative segment sizes. Unfortunately, AIC3 and CAIC did not result in the same number of segments. More precisely, AIC3 indicates a five-segment solution, whereas CAIC points to a one-segment solution. Regarding other criteria AIC indicates a two-segment solution, AIC4 indicates a two-segment solution, while both BIC and MDL5 points to a one-segment solution. These results suggesting that the optimal segment solution was between a one-segment, two-segment, five-segment, or seven-segment solution. However, the two-segment solution exhibits an EN value below 0.50, suggesting that the two segments are not a reliable solution.

Examining the relative segment sizes revealed that neither the five-segment nor the seven-segment solution was feasible and realistic due to failure in meeting the minimum sample size requirement (which was 89). For instance, the breakdown of segment sizes for the a five-segment solution are: segment 1 with 35.7 % (275 observations); segment 2 with 33% (254 observations); segment 3 with 18.1% (140 observations); segment 4 with 7% (54 observations); and segment 5 with 6.4 % (49 observations). It, therefore, indicates that the one-segment solution is the optimal solution. Thus, “unobserved heterogeneity does not significantly affect the data, which supports the results of the entire data set’s analysis”.

Table 6.23 FIMIX-PLS Results with Respect to the Number of Segments and Relat

Fit indices	No of segments					
	1	2	3	4	5	6
AIC	7361.026	7281.955	7246.422	7197.278	7165.587	7144.203
AIC3	7384.026	7328.955	7317.422	7292.278	**7284.587**	7287.203
AIC4	7407.026	**7375.955**	7388.422	7387.278	7403.587	7430.203
BIC	**7467.952**	7500.457	7576.500	7638.931	7718.816	7809.007
CAIC	**7490.952**	7547.457	7647.500	7733.931	7837.816	7952.007
MDL5	**8079.659**	8750.467	9464.811	10165.545	10883.733	11612.227
EN	n/a	0.343	0.387	0.450	0.546	0.697
No. of segments	**Relative segment sizes (N = 772)**					
	Seg 1	**Seg 2**	**Seg 3**	**Seg 4**	**Seg 5**	**Seg 6**
1	1					
2	0.503	0.497				
3	0.465	0.327	0.207			
4	0.381	0.294	0.165	0.161		
5	0.357	0.330	0.181	0.070	0.064	

6	0.464	0.373	0.050	0.044	0.036	0.034
7	0.299	0.259	0.157	0.141	0.086	0.041
8	0.364	0.326	0.097	0.077	0.043	0.043

Note: AIC = Akaike information criterion; AIC3 = modified AIC with factor 3; AIC4 = modified AIC with factor 4; BIC = consistent AIC; HQ= Hannan Quinn criterion; MDL5 = minimum description length with factor 5, EN = entropy stat outcome per segment retention criterion.

6.4 Conclusions

To fulfill the general objective of this thesis and the specific objectives, this chapter presented the statistical analysis undertaken to verify the conceptual model and test the hypothesized direct and indirect relationships. The chapter presented three main statistical analysis procedures that were carried out sequentially.

- First, the procedures that were undertaken to prepare the data to proceed with the statistical analysis process by discussing the issues related to data coding, response rate and non-response bias, and testing for survey mode effects.
- Second, the preliminary data analysis procedures were presented by discussing the issues related to the description of the sample characteristics and profiles, comparing the distribution of the sociodemographic characteristics of the sample and those of the population, the descriptive analysis of the study variables, testing for multicollinearity, assessing for common method variance, tests of normality distribution of data, and reliability assessment.
- Third, a three-stage process using the PLS-SEM approach was undertaken to verify the conceptual model and test the hypothesized relationships, in which the following results are achieved:
    - University brand attractiveness, university-self similarity, and university social responsibility significantly influence university brand identification, while university prestige and university distinctiveness are not. This makes it possible to fulfill the first objective of this study, which set out to analyze the influence of these variables as antecedents' factors of university brand identification.
    - University brand attractiveness has a full mediation role in the relationship between both university prestige and university distinctiveness and university brand identification. While it has a complementary mediation role in the relationship between both university-self similarity and university social responsibility and university brand identification. These findings help to achieve the second objective of this study, which set out to examine the mediating effect of university brand attractiveness in the

relationships between these variables and university brand identification.

- University brand identification is a crucial driver for student satisfaction and student loyalty, whereas its influence on student trust is not supported. These results fulfill the third objective of this study, which set out to study the influence of university brand identification on student satisfaction, student trust, and student loyalty (as consequences variables).
- Student satisfaction has a complementary mediation role in the relationship between university brand identification and student loyalty. Also, student satisfaction and student trust sequentially have a complementary mediation role in the relationship between university brand identification and student loyalty. Whereas student trust only does not have a mediating role in the relationship between these two variables. These results meet the fourth objective of this study, which set out to examine the mediating effect of student satisfaction and student trust in the relationship between university brand identification and student loyalty.
- University brand identification has a complementary mediation role in the relationship between university brand attractiveness and both student satisfaction and student loyalty. While the results revealed that university brand identification does not have a mediating role in the relationship between university brand attractiveness and student loyalty. These results fulfill the fifth objective of this study, which set out to examine the mediating effect of university brand identification in the relationships between university brand attractiveness and student satisfaction, student trust, and student loyalty.

The next chapter discusses findings from the analysis in relation to the relevant literature along with theoretical contributions made, and the proposed managerial implications.

CHAPTER 7

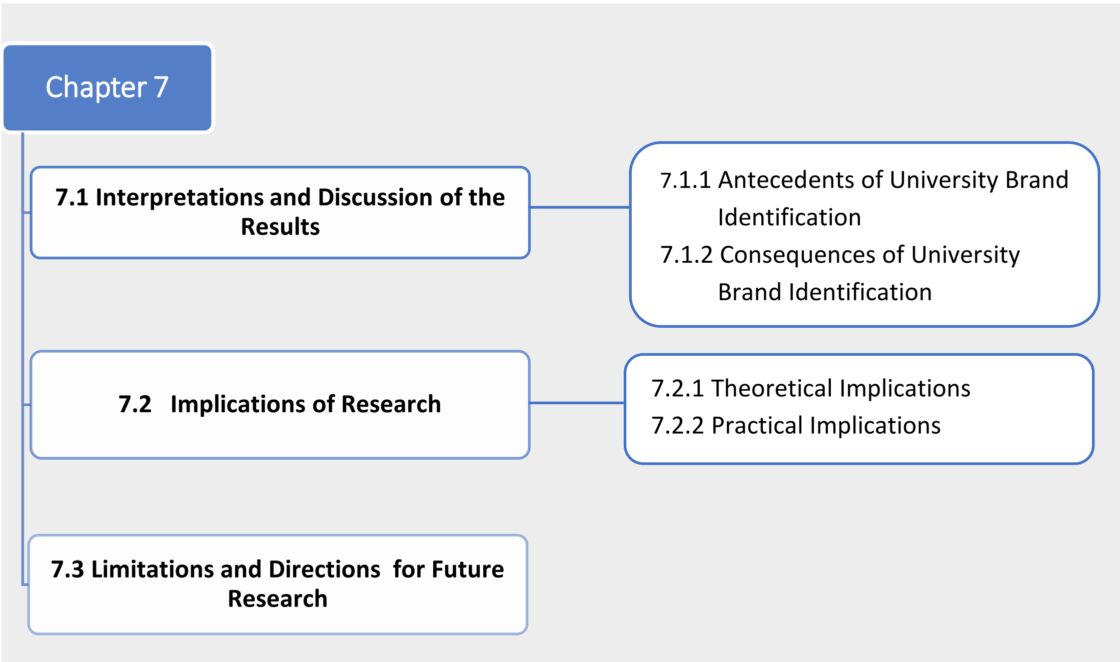
DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

- Interpretations and Discussion of the Results
- Implications of Research
- Limitations and Directions for Future Research

DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

This chapter aims to provide a summary and conclusion to the research. The chapter begins with an interpretation and discussion of the data analysis results revealed in the previous chapter in relation to the relevant literature. Followed by a discussion of the theoretical and practical implications derived from these results. The chapter ends by outlining the limitations of this study and the directions for future research. Figure 7.1 shows how the chapter is structured.

Figure 7.1 Structure of Chapter Seven



7.1 Interpretations and Discussion of the Results

The general objective of this study is to provide a comprehensive conceptual framework for the cognitive antecedents of university brand identification and its consequences on student's attitudes and behaviors toward the university from the social identity perceptive. Five research questions were proposed in an attempt to discover this phenomenon. To facilitate the investigation of the research questions and the main objective, a number of more specific objectives have been developed. Table 7.1 presents a summary of each of the research questions and its corresponding research objective and hypotheses formulated to answer this research question and its results. The next subsections present a detailed discussion of the study findings.

7.1.1 Antecedents of University Brand Identification

The first objective of this study was to investigate the influence of several cognitive antecedents' factors on university brand identification. Precisely, the conceptual model (Figure 4.3) proposed five cognitive antecedent factors of university brand identification: university brand attractiveness (Hypothesis 1), university-self similarity (Hypothesis 3), university prestige (Hypothesis 5), university distinctiveness (Hypothesis 7), and university social responsibility (Hypothesis 9). Empirical results partially supported these assertions. University brand attractiveness (Hypothesis 1), university-self similarity (Hypothesis 3), and university social responsibility (Hypothesis 9) were deemed to be antecedents of university brand identification. However, the results suggested that university prestige (Hypothesis 5) and university distinctiveness (Hypothesis 7) does not significantly influence university brand identification. The next sections offer a discussion of each of these findings in more detail.

Table 7. 1 Research Questions, Objectives, and Hypotheses

Research Questions	Research Objectives	Hy
1. Do university brand attractiveness, university-self similarity, university prestige, university distinctiveness, and university social responsibility (as cognitive antecedents variables) influence university brand identification?	1. To examine the influence of university brand attractiveness, university-self similarity, university prestige, university distinctiveness, and university social responsibility (as antecedents) on university brand identification.	Five research hypotheses research objective, below a results of these hypotheses
		H1: University brand attract University brand identif
		H3: University-self similarity University brand identif
		H5: University prestige → U brand identification
		H7: University distinctivenes University brand identif
		H9: University social respons University brand identif
2. Does university brand attractiveness have a mediating role in the relationship between university-self similarity, university prestige, university distinctiveness, and university	2. To examine the mediating effect of university brand attractiveness in the relationships between university-self similarity, university prestige, university distinctiveness, and university social responsibility and university brand identification.	Five research hypotheses research objective, below a results of these hypotheses
		H2: University-self similarity University brand attract
		H4: University prestige → U brand attractiveness

Research Questions	Research Objectives	Hy
social responsibility, and university brand identification?		**H6:** University distinctivenes University brand attract
		H8: University social respons University brand attract
		H10a: University-self similar University brand attra University brand iden
		H10b: University prestige → brand attractiveness – brand identification
		H10c: University distinctiver University brand attra University brand iden
		H10d: University social respo University brand attra University brand iden
3. Do university brand identification influence student satisfaction student trust student loyalty (as consequences variables)?	3. To examine the influence of university brand identification on student satisfaction, student trust, and student loyalty (as consequences variables).	Three hypotheses were de objective, below are the hy these hypotheses: -
		H12: University brand identi Student satisfaction
		H14: University brand identi Student trust

Research Questions	Research Objectives	Hy
		H17: University brand identi Student loyalty
4. Do student satisfaction and student trust in the university have a mediating role in the relationship between university brand identification and student loyalty?	4. To examine the mediating effect of student satisfaction and student trust in the university in the relationship between university brand identification and student loyalty.	Four research hypotheses research objective, below a results of these hypotheses
		H15: Student satisfaction → S
		H18: Student satisfaction → S loyalty
		H19: Student trust → Studen
		H21a: University brand ide Student satisfactio loyalty
		H21b: University brand ide Student trust→ Stude
		H21c: University brand ide Student satisfaction— → Student loyalty
5. Does university brand identification have a mediating role in the relationships between university brand attractiveness	5. To examine the mediating effect of university brand identification in the relationships between university brand attractiveness	Four research hypotheses research objective, below a results of these hypotheses
		H11: University brand attr Student satisfaction

Research Questions	Research Objectives	Hy
and student satisfaction, student trust, and student loyalty?	and student satisfaction, student trust, and student loyalty.	**H13:** University brand attr Student trust
		H16: University brand attr Student loyalty
		H20a: University brand attr University brand ide Student satisfaction
		H20b: University brand attr University brand ide Student trust
		H20c: University brand attr University brand ide Student loyalty

7.1.1.1 University Brand Attractiveness

The purpose of the first Hypothesis was to investigate the influence of university brand attractiveness on university brand identification. The findings revealed that university brand attractiveness significantly influences university brand identification, and it was even identified as the strongest predictor of university brand identification. This result indicates that students are more likely to identify with a university brand when they perceive the university brand as attractive and as partially fulfilling one or more of their fundamental self-definitional needs. This association contributes to a greater understanding of the important role that university brand attractiveness plays in reinforcing identification with a university brand. This result is consistent with Balmer *et al.*'s study (2020) in which they demonstrated the positive effect of university brand attractiveness on international postgraduate business students' identification with the university brand. Also, this result offers support for the prevailing notion in the marketing literature that the attractiveness of a company/brand is a precursor to customer identification with that company/brand (e.g., Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009; Kim *et al.*, 2001; Marin and de Maya, 2013; Marin *et al.*, 2009).

7.1.1.2 University-Self Similarity

Self-similarity can help individuals fulfill their self-definitional needs for continuity or verification (Elbedweihy *et al.,* 2016; Lam *et al.*, 2013; Tuškej *et al.*, 2013). The third Hypothesis examined whether university-self similarity influences university brand identification. The findings revealed that university-self similarity significantly influences university brand identification. This result indicates that students are more likely to identify with a university brand when they perceive a similarity between themselves and the university to fulfill their self-definitional needs for continuity or verification. This result offers support to the previous studies that documented the crucial role of university-self similarity in cultivating meaningful relationships with students (Balmer *et al.*, 2020; Fazli-Salehi *et al.*, 2019; Pinna *et al.*, 2018; Schlesinger *et al.,* 2017). For instance, Fazli-Salehi *et al.* (2019) found that university-self similarity manifested in value congruence (i.e., the similarity between students' own values and university' values) is positively related to university brand identification. This finding is consistent with the previous organizational behavior studies that supported the positive influence of organization-self similarity on organizational identification (e.g., Cable and DeRue, 2002; Cinar, 2019; Griepentrog *et al.*, 2012) and its counterpart in the marketing literature (Bhattacharya and Sen, 2003; Stokburger-Sauer *et al.*, 2012; Lam *et al.*, 2013; Tuškej *et al.*, 2013; Elbedweihy *et al.*, 2016; Wolter *et al.*, 2016; Han *et al.*, 2019; Shokri and Alavi, 2019).

7.1.1.3 University Prestige

In organizational behavior literature, drawing on the prevailing notion that employees seek to identify more with organizations that are evaluated favorably by outsiders to fulfill their self-enhancement needs and enhances their self-esteem, organizational prestige is well recognized as an important precursor to organizational identification (e.g., Bergami and Bagozzi, 2000; Dutton *et al.*, 1994Dukerich *et al.*, 2002; Fuller *et al.*, 2006; Kim *et al.*, 2010; Smidts *et al.*, 2001). From the marketing perspective, consumers also seek to identify with prestigious companies or brands to satisfy their self-enhancement needs by viewing themselves in the reflected glory of those companies/brands (Bhattacharya and Sen, 2003). Drawing on this argument, several studies have provided empirical evidence to the positive influence of customer's perception of a company/brand prestige on customer identification (e.g., Bhattacharya *et al.*, 1995; Han *et al.*, 2019; Kuenzel and Halliday, 2008; Tuškej and Podnar, 2018).

Hypothesis 5 examined whether students' perception of a university's prestige influences university brand identification. Contrary to expectations, the results revealed the opposite. Precisely, university prestige, in the presence of other antecedents (i.e., university brand attractiveness, university-self similarity, university distinctiveness, and university social responsibility), does not have a significant influence on university brand identification. This result is not consistent with prior studies in which university prestige was found to partially enhance university brand identification (Balaji *et al.*, 2016; Fazli-Salehi *et al.*, 2019; Mael and Ashforth, 1992; Pinna *et al.*, 2018; Stephenson and Yerger, 2014a, 2014b). For instance, Balaji *et al.* (2016) found that students' perception of university prestige significantly influences university brand identification. Fazli-Salehi *et al.* (2019) in their study of students' identification with university brands among current students on public universities in Iran reported the positive influence of university prestige on university brand identification. A likely explanation for this contradictory finding may be that the perceived perception of a university prestige, in the presence of the other antecedents variables of university brand identification incorporated in the study's model, is considered less valuable to students. This view is consistent with the findings of So *et al.* (2017) and Stokburger-Sauer *et al.* (2012), in which brand prestige was found not play a significant role in reinforcing consumer identification with a brand in the presence of other cognitive antecedents (e.g., brand-self similarity, perceived distinctiveness).

Additionally, the meditating role of university brand attractiveness in the relationship between university prestige and university brand identification (Hypothesis 10b) as will be discussed later offered important insights in explaining this contradictory finding, as it revealed that university brand attractiveness fully mediates the relationship between university prestige and university brand identification. In other words, university prestige is no longer affects university brand identification in the presence of university brand attractiveness which captures the overall perceived perception of a university identity.

7.1.1.4 University Distinctiveness

Social identity theory asserts that individuals seek to accentuate their own distinctiveness in interpersonal contexts (Tajfel and Turner, 1986). Thus, people are inclined more to link their identities with entities (e.g., persons, groups, organizations, brands) that they perceive as more distinctive than others to distinguish themselves and enhances their self-esteem (Ashforth and Mael, 1989; Bhattacharya and Sen, 2003; Dutton *et al.*, 1994). Hypothesis 7 examined whether students' perception of a university's distinctiveness influences university brand identification. Contrary to expectations, the outcomes of the results revealed the opposite. Precisely, perceived university distinctiveness in the presence of other antecedents of university brand identification incorporated in the study model does not have a significant influence on university brand identification. This finding is consistent with the study outcomes of Fazli-Salehi *et al.* (2019) in which they did not show support for the direct influence of university brand distinctiveness on students' identification with university brands. Also, it agrees with the findings of So *et al's.* (2017) as they failed to support the direct influence of brand distinctiveness on customer identification with the brand in a hospitality industry context. On the other side, this result is not consistent with the studies by Balmer *et al.* (2020) and

Mael and Ashforth (1992) in which they have reported the positive influence of the perceived perceptions of a university's distinctiveness on the university brand identification.

A likely explanation for these contradictory findings may be that the perceived perception of a university distinctiveness, in the presence of the other antecedents variables of university brand identification incorporated in the study’s model, is considered less valuable to students. Additionally, the presence of university brand attractiveness as a mediating variable in the relationship between university distinctiveness and university brand identification (Hypothesis 10c), as will be discussed in another point of this chapter, offered important insights in explaining these contradictory findings, as it revealed that university brand attractiveness fully mediates the relationship between university distinctiveness and university brand identification. In other words, university distinctiveness is no longer affects university brand identification in the presence of university brand attractiveness which reflects the overall perception of a university identity.

7.1.1.5 University Social Responsibility

The purpose of Hypothesis 9 was to examine the influence of university social responsibility on university brand identification. The results showed that university social responsibility significantly influences university brand identification. This indicates that students are more likely to identify with a university brand when they are aware of university social responsibility initiatives and have a favorable perception of the university’s social responsibility image. In other words, students are more likely to identify with those universities with higher levels of university social responsibility in order to express a more ethical and social image and increase their self-esteem. This result is consistent with the findings of El-Kassar *et al.*'s study (2019) in which they found that university social responsibility significantly influences university brand identification. This result adds support to the scant literature that referred to the importance of university social responsibility as an important marketing tool that has favorable consequences on the attitudes and behaviors toward a university (El-Kassar *et al.*, 2019; Ismail and Shujaat, 2019; Sánchez-Hernández and Mainardes, 2016; Vasquez *et al.*, 2015). This result also consistent with the organizational behavior studies in which organizational members' perceptions of the social image of their organization was found to play a significant role in reinforcing organizational identification (Kim *et al.*, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019) and its counterpart in the marketing literature in which CSR was found to be an important precursor to a consumer- company/brand identification (He and Li, 2011; Lichtenstein *et al.*, 2004; Marin *et al.*, 2009; Martínez and Rodriguez del Bosque, 2013; Pérez and Rodríguez del Bosque, 2015).

7.1.1.6 Mediating Effect of University Brand Attractiveness

The second objective of this study was to examine the mediating effect of university brand attractiveness in the relationships between university-self similarity, university prestige, university distinctiveness, and university social responsibility and university brand identification. Five hypotheses were developed to achieve this research objective (i.e., Hypotheses 2, 4, 6, 8, and 10). Precisely, Hypotheses (2, 4, 6, 8) predict the direct effect of university-self similarity, university prestige, university distinctiveness, and university social responsibility on university brand attractiveness. Then Hypothesis 10 predicts the indirect effect of university-self similarity (Hypothesis 10a), university prestige (Hypothesis 10b), university distinctiveness (Hypothesis 10c), and university social responsibility (Hypothesis 10d) on university brand identification via university brand attractiveness.

The results showed that all four determinants, university-self similarity (Hypothesis 2), university prestige (Hypothesis 4), university distinctiveness (Hypothesis 6), and university social responsibility (Hypothesis 8), have a considerable direct and positive effect on university brand attractiveness, as these four determinants collectively explain a substantial amount of the variance in university brand attractiveness. These results give support to the nation that the individuals' perception of a brand identity characteristics that relates to their key self-definitional needs (i.e., self-verification, self-enhancement, and self-distinctiveness) are key determinants for the perceived attractiveness of the brand identity (Bhattacharya and Sen, 2003; Dutton *et al.*, 1994). Also, these results give support to the idea that the social role of a brand/company accounts for the attractiveness of that company/brand identity without requiring intermediate variables (Currás-Pérez *et al.*, 2009; Marin and Ruiz, 2007; Sen and Bhattacharya, 2001). The results of this study showed that these arguments are valid also in the context of the student-university relationship. In other words, the more a university brand identity matches the students' sense of self (i.e., university-self similarity), the more that university brand identity to be attractive for students not only because they find their self-relevant information inherent in the university identity but also because such university brand identity enables them to maintain a consistent sense of who they are. Also, students' perception of a university brand identity as distinctive increases the attractiveness of that university brand identity, as it satisfies their need to distinguish and differentiate themselves, increasing the psychological distance in relation to students of other competing universities (Currás-Pérez *et al.,* 2009; Kim *et al.*, 2001). These results also indicate that the attractiveness of a university brand identity is likely to be determined in part by its perceived prestige and social role, which enhance from the attractiveness of that university brand as a target for identification to satisfy students' needs of self-enhancement and enriches their sense of self-worth.

The results from Hypothesis 10 showed support to the indirect effect of university-self similarity (Hypothesis 10a), university prestige (Hypothesis 10b), and university distinctiveness (Hypothesis 10c), and university social responsibility (Hypothesis 10d) on university brand identification via university brand attractiveness. These findings confirming the mediating role of university brand attractiveness in these relationships. The outcomes from Hypothesis 10a, Hypothesis 10b, and Hypothesis 10c give empirical support to Bhattacharya and Sen's (2003) study in which they proposed that brand attractiveness mediates the relationship between the antecedents driven by consumer's key self-definitional needs and consumer-company/brand identification. The findings from Hypothesis 10d are in agreement with the findings of El-Kassar *et al.*'s study (2019) in which they documented the mediating role of university brand attractiveness in the relationship between university social responsibility and university brand identification. The mediating relationships between these constructs provide important insights to understand the intervening relationships between these constructs. For instance, the results of the mediating role of university brand attractiveness revealed that university brand attractiveness has a fully mediating role in the relationship between university prestige and university distinctiveness and university brand identification, which could help in explaining the contradictory findings in the relationships between these two antecedents variables and university brand identification. In other words, the perceived perception of a university brand identity in terms of its prestige and distinctiveness are no longer affects university brand identification in the presence of university brand attractiveness which captures the overall perceived perception of a university identity characteristics. On the other side, university brand attractiveness has a complementary mediating role in the relationship between university-self similarity and university social responsibility and university brand identification, as in the presence of university brand attractiveness these two variables still have a significant direct effect on university brand identification. Such results highlight the importance of university-self similarity and university social responsibility as important drivers of university brand identification.

7.1.2 Consequences of University Brand Identification

The second objective of this study was to investigate the influence of university brand identification students' attitudes and behaviors toward the university. More specifically, the conceptual model (Figure 4.3) proposed three consequence factors of university brand identification: student satisfaction (Hypothesis 12), student trust (Hypothesis 14), and student loyalty (Hypothesis 17). Empirical results partially supported these assertions because it revealed that student satisfaction (Hypothesis 12) and student loyalty (Hypothesis 17) were deemed to be consequences factors of university brand identification. However, the results suggested that university brand identification does not have a significant direct influence on student trust (Hypothesis 14). The following sections present a discussion of each of these findings in more detail.

7.1.2.1 Student Satisfaction

The purpose of Hypothesis 12 was to examine the influence of university brand identification on student satisfaction. Although extant studies that addressed the relationship between student satisfaction and university brand identification have reported mixed results in both the significance and the directionality of the linkage between the two constructs, the results of this study revealed that university brand identification is an important driver for student satisfaction. This result is consistent with the previous findings that confirmed the significant influence of university brand identification on student satisfaction (Heffernan *et al.*, 2018; Wilkins *et al.*, 2016). Also, it is consistent with the dominant findings in the marketing literature in the linkage between customer's identification and customer satisfaction, as these findings proved that the higher levels of customer identification lead to a more favorable overall judgment about the target of identification and customers are more likely to remain satisfied with that target even when their expectations are not fully met (Camarero and Garrido, 2011; He *et al.*, 2012; Pérez and Rodríguez del Bosque, 2015; Popp and Woratschek, 2017). The findings of this study prove that this argument is valid also in the context of the student-university relationship, which means developing an identification relationship with a university brand will lead to a more favorable overall judgment about that university brand and students are more likely to remain satisfied with the university even when their expectations are not fully met through the university.

7.1.2.2 Student Trust

The aim of Hypothesis 14 was to investigate whether university brand identification influences student trust in the university. Contrary to expectations, the outcomes of the results do not show support for this relationship. This result is not consistent with the available literature that addressed the linkage between university brand identification and student trust in the university (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016). As previously explained, these studies have reported discordant findings in the directionality of the relationship between the two constructs. On the one hand, Nevzat *et al.* (2016) have documented the significant positive influence of university brand identification on student trust, as students develop higher levels of trust in university when they identify with that university brand. On the other side, Heffernan *et al.* (2018) and Myers *et al.* (2016) reported the opposite and documented the significant positive influence of student trust on university brand identification, which means when students believe that their university treats them fairly and makes decisions with concern in their best interests, the student fell more inclined to identify with the university. A likely explanation for the contradiction between the findings of this study and the prior studies in the relationship between university brand identification and student trust in the university may be that in the presence of student satisfaction in the same direction of the relationship university brand identification and student trust, student trust is considered less valuable to students. In other words, in the presence of student satisfaction, which captures student's subjective evaluation of the overall outcomes and experiences with education and the university, the direct linkage between university brand identification and student trust is no longer to be significant. This view is consistent with Martínez and Rodriguez del Bosque's study (2013) where there failed in supporting the significance of the linkage between the two constructs customer trust and customer's identification with the brand in the presence of customer satisfaction in the same model of investigation. Additionally, the results of assessing the possible mediating relationships incorporated in the conceptual model of this study provided empirical support to this argument as it revealed that student satisfaction fully mediates the relationship between university brand identification and student trust.

7.1.2.3 Student Loyalty

Organizational behavioral literature has documented well that the individual's identification with an organization engenders an individual's loyalty and supportive behaviors toward that organization (e.g., Bagozzi and Bergami 2002; Edwards, 2005; Jones, 2010). Also, marketing literature provides ample support for the notion that customers' identification with a company/brand is linked to their loyalty toward that company/brand (e.g., Berrozpe *et al.*, 2019; Han *et al.*, 2020; Homburg *et al.*, 2009; Kuenzel and Halliday, 2010; Stokburger-Sauer *et al.*, 2012). The purpose of Hypothesis 17 was to examine the influence of university brand identification on student loyalty. The results revealed that university brand identification is an important predictor of student loyalty. This result indicates that university brand identification causes students to become psychologically attached to and care about the university because they perceive it as part of themselves, which motivates them to commit to the achievement of its goals, expend more voluntary effort on its behalf, and maintain a strong relationship with the university after graduation. This finding is consistent with the prior studies that showed support for the positive influence of university brand identification on the loyalty toward the university in the context of students' relationship with the university (El-Kassar *et al.*, 2019; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018) and also in the context of alumni's relationship with the university (Palmer *et al.*, 2016; Rodríguez *et al.*, 2019).

7.1.2.4 Mediating Effect of Student Satisfaction and Student Trust

The fourth objective of this study was to examine the mediating effect of student satisfaction and student trust in the relationships between university brand identification and student loyalty. Four hypotheses were developed to achieve this research objective (i.e., Hypotheses 15, 18, 19, and 21). Precisely, Hypotheses (15,18, 19) predict the direct effect between student satisfaction, student trust, and student loyalty. Then Hypothesis 21 predicts the indirect effect of university brand identification on student loyalty via student satisfaction (Hypothesis 21a), student trust (Hypothesis 21b), student satisfaction and student trust sequentially (Hypothesis 21c), and university social responsibility (Hypothesis 10d) on university brand identification via university brand attractiveness.

The outcomes of the results for Hypothesis 15 showed that student satisfaction is a crucial driver for student trust, this result indicates that students' overall satisfaction engender students' trust in the university because it is indicative of the university's consistency in fulfilling its promises. This result is consistent with the abundant supporting evidence in the literature on higher education marketing that supports the pivot role of student satisfaction on student trust (Rojas-Méndez *et al.*, 2009; Frasquet *et al.*, 2012; Schlesinger *et al.*, 2017), as well as with the marketing literature that documented the critical role of customer satisfaction on customer trust (Chaudhuri and Holbrook, 2001; Delgado-Ballester and Munuera-Alemán, 2001; He *et al.*, 2012; Schirmer *et al.*, 2018).

The literature on higher education marketing has ample evidence of the strong influence of student satisfaction on students' loyalty and supportive behaviors (e.g., Brown and Mazzarol, 2009; Clemes *et al.*, 2008; Helgesen and Nesset, 2007a, 2007b; Ledden *et al.*, 2011; Schlesinger *et al.*, 2015; Schlesinger *et al.*, 2017). The results for Hypothesis 18 offered support to this literature as it revealed that student satisfaction has a pivotal role in student loyalty.

The purpose of Hypothesis 19 was to examine the influence of student trust on student loyalty. As hypothesized the results of the current study showed support to the significance of the influence of student trust on study loyalty. This result is consistent with the abundant supporting evidence in the literature on higher education marketing that supports the important role of student trust in shaping student loyalty (e.g., Carvalho and de Oliveira Mota, 2010; Hennig-Thurau *et al.*, 2001; Schlesinger *et al.*, 2017).

The purpose of Hypothesis 21 was to examine whether university brand identification influences student loyalty indirectly via student satisfaction (Hypothesis 21a), student trust (Hypothesis 21b), and student satisfaction and student trust sequentially (Hypothesis 21c) to predict the mediating role of student satisfaction and student trust in the relationship between university brand identification and student loyalty. The results from Hypothesis 21 showed support to the indirect effect of university brand identification on student loyalty via student satisfaction (Hypothesis 21a) and via student satisfaction and student trust sequentially (Hypothesis 21c), whereas the indirect effect via student trust was not. These results and the results from Hypothesis 17 demonstrate the complementary mediating role of student satisfaction in the relationship between university brand identification and student loyalty. Also, these results give support for the complementary mediating role of student satisfaction and student trust sequentially in the relationship between university brand identification on student loyalty, while student trust only does not have a mediating role in this relationship. These results indicate that university brand identification does not only affect student loyalty but also enhances student perception of social exchange relationships manifested in student satisfaction and student trust. In other words, these results prove that the effect of university brand identification goes through some student psychological states, such as student satisfaction, and student trust. These mediation relationships are important because it provides scholars with a deep understanding of interaction effects between that constructs.

7.1.2.5 Mediating Effect of University Brand Identification

The last objective of this study was to examine whether university brand identification has a mediating role in the relationship between university brand attractiveness and student satisfaction, student trust, and student loyalty. Four hypotheses were developed to achieve this research objective (11,13, 16, 20). Precisely, Hypotheses (11,13, 16) predict the direct effect of university brand attractiveness on student satisfaction (Hypothesis 11), student trust (Hypothesis 13), and student loyalty (Hypothesis 16). Then Hypothesis 20 predicts the indirect effect of university brand attractiveness on student satisfaction (Hypothesis 20a), student trust (Hypothesis 20b), and student loyalty (Hypothesis 20c) via university brand identification to predict the mediating role of university brand identification in these relationships.

The outcomes of the results showed that university brand attractiveness is an important predictor of student satisfaction (Hypothesis 11), student trust (Hypothesis 13), and student loyalty (Hypothesis 16). These findings show that students' positive perceptions of the attractiveness of the university brand identity play a crucial role in enhancing student perception of social exchange relationships manifested in student satisfaction and student trust and also have a pivotal role in deriving students' loyalty behaviors toward the university. These findings are in line with previous studies which demonstrated that perception of the university image is an important predictor of student satisfaction (e.g., Brown and Mazzarol, 2009; Gibson, 2010; Palacio *et al.*, 2002; Schlesinger *et al.*, 2017), student trust (Schlesinger *et al.,* 2017), and student loyalty directly with without the need for intermediate constructs (e.g., Brown and Mazzarol, 2009; Casidy and Wymer, 2016; Helgesen and Nesset, 2007a; Schlesinger *et al.*, 2015).

The purpose of Hypothesis 20 was to examine the indirect effect of university brand attractiveness on student satisfaction (Hypothesis 20a), student trust (Hypothesis 20b), and student loyalty (Hypothesis 20c) via university brand identification. The findings showed support to the indirect effect of university brand attractiveness on student satisfaction (Hypothesis 20a) and student loyalty (Hypothesis 20c) via university brand identification, whereas the indirect effect on student trust was not. The results of the direct relationships between university brand attractiveness and student satisfaction (Hypothesis 11), student trust (Hypothesis 13), and student loyalty (Hypothesis 16) and the indirect relationships via university brand identification Hypotheses (20a, 20b, 20c) confirming the complementary mediating role of university brand identification in the relationships between university brand attractiveness and student satisfaction and between university brand attractiveness and student loyalty. These results indicate university brand attractiveness is a powerful mechanism that has a dual-route in improving and enhancing students' relationships with the university. One path through the social identity perspective by helping students to fulfill their key self-definitional needs and the other path through the social exchange perspective through some student psychological states, such as student satisfaction, and student trust.

Additionally, such mediation relationships are important to deeply understand the interaction effects between that constructs.

7.2 Implications of Research

This section presents the contributions and implications of this doctoral thesis. The implications of this thesis can be classified into two large blocks, one related to the theoretical implications, which related to the contributions that this thesis makes in the academic field and knowledge, and the other related to the practical implications, which related to the contributions that this thesis makes in the professional field of the higher education sector. The next sections offer a detailed discussion of these two types of implications.

7.2.1 Theoretical Implications

This study offers relevant insights into the emerging research on university brand identification from the social identity perspective (Balaji *et al.*, 2016; Balmer *et al.*, 2020; Pinna *et al.*, 2018; Wilkins *et al.*, 2016) and the body of knowledge on a student-university relationship (Arnett *et al.*, 2003; Helgesen and Nesset, 2007; Schlesinger *et al.*, 2017) can be summed up as follows.

1. This study provides an integrative understanding of the cognitive antecedents (i.e., the antecedents driven by satisfying the individual's key self-definitional needs) of university brand identification that have, thus far, been examined only in isolation. Thus, this is the first work that brought together university brand attractiveness, university-self similarity, university prestige, university distinctiveness, and university social responsibility as antecedent factors of university brand identification, to provide an integrative understanding of the importance of these constructs in predicting university brand identification.
2. By including the constructs of university brand attractiveness, university-self similarity, and university social responsibility, the current study contributes to the scant literature on these constructs and their role as important drivers to enhance student's relationship with the university. For instance, university brand attractiveness (Balmer *et al.*, 2020), university-self similarity (Fazli-Salehi, *et al.*, 2019; Schlesinger *et*

al., 2017), and university social responsibility (Ismail and Shujaat, 2019; Sánchez-Hernández and Mainardes, 2016).

3. By examining the mediating role of university brand attractiveness in the relationships between university-self similarity, university prestige, university distinctiveness, and university social responsibility and university brand identification this study makes two novel contributions. First, to the best of the researcher's knowledge, this study is the first to empirically examine the linkage between university-self similarity, university prestige, university distinctiveness, and university social responsibility, and university brand attractiveness. By documenting the pivot role of these variables as crucial drivers of university brand attractiveness as these four constructs explain 72.7% of the variance in university brand attractiveness, this study provides important insights on the main forces underlying university brand identification. Second, the current comprehensive review of university brand identification literature revealed that Balmer *et al.*'s (2020) study is the only that reported the mediating role of university brand attractiveness in the relationship between university-self similarity and university distinctiveness and university brand identification, by documenting the mediating role of university brand attractiveness in the relationship between university-self similarity, university prestige, university distinctiveness, and university social responsibility and university brand identification, this study adds support to Balmer *et al.*'s (2020) findings and make a novel contribution by reporting the mediating effect of university brand attractiveness in the relationships between university prestige and university social responsibility and university brand identification. such mediation relationships provide a more nuanced theoretical picture of the forces underlying university brand identification.
4. This is the first work that suggests that social identification perspective can integrate with a social exchange perspective to enhance student loyalty toward the university. This study demonstrates this by developing and testing a more general model that integrates university brand identification with traditional social exchange variables (i.e. student satisfaction and student trust) as antecedent factors of student loyalty.

5. This study complements previously inconsistent findings on the relationship between university brand identification and student satisfaction (Heffernan *et al.*, 2018; Trullas *et al.*, 2018; Wilkins *et al.*, 2016) and between university brand identification and student trust (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016).
6. By confirming the positive influence of university brand identification on student loyalty, this study offers further support to the previous finding that confirmed the significant influence of university brand identification on loyalty and supportive behaviors toward the university (Balaji *et al.*, 2016; Fazli-Salehi *et al.*, 2019; Kim *et al.*, 2010; Palmer *et al.*, 2016; Yao *et al.*, 2019).
7. By documenting the pivot role of student satisfaction on student trust and student loyalty, this study gives further support to the notion that student satisfaction is a crucial driver to student trust and student loyalty (Frasquet *et al.*, 2012; Palacio *et al.*, 2002; Schlesinger *et al.*, 2017).
8. This study is the first, to the best of the researcher's knowledge, to empirically examine the mediating role of social exchange variables manifested in student satisfaction and student trust in the relationship between university brand identification and student loyalty. By documenting the mediating effect of student satisfaction and student trust in this relationship, this research is the first one that notices that university brand identification does not only affect student loyalty toward the university but also enhances student perception of social exchange relationships manifested in student satisfaction and student trust. Such results give a more nuanced picture of the outcomes of university brand identification.
9. Finally, by investigating the mediating role of university brand identification in the linkage between university brand attractiveness and student satisfaction, student trust, and student loyalty, this study makes two novel contributions. First, this is the first work that documenting the crucial predicting role of university brand attractiveness on university brand identification, student satisfaction, student trust, and student loyalty. This suggests that university brand attractiveness is a powerful mechanism that has a dual-route in enhancing students' relationship with the university through the social identification perspective and the social exchange perspective. Second, this also the first work that reporting the mediating effect of university brand identification in the

linkage between university brand attractiveness and both student satisfaction and student loyalty, which provides a more clear picture of the outcomes of university brand attractiveness.

7.2.2 Practical Implications

The findings of the current study provide several practical insights into the higher education sector can be summed up as follows.

First, the pivotal role of university brand identification on student satisfaction and loyalty suggests that universities' marketing efforts should seek to enhance the factors that drive students to develop a self-identification relationship with their universities because of its valuable consequences on students' attitudes and behaviors toward their universities manifested in student satisfaction and loyalty. Among strategies that universities are advised to implement to drive students to develop a self-identification relationship with their universities, are the following: -

- A more rigorous effort in building and articulating an attractive brand identity because students have a greater tendency to identify with a university if it has an attractive brand identity to satisfy their key self-definitional needs.
- The strategic brand campaigns and marketing communication efforts to improve student awareness of the university's prestige, distinctiveness, values, and core message. For instance, the University of Granada, one of the top Spanish universities, has launched a web site called "canal.ugr.es", also has a page on various social media channels (e.g., Facebook, Youtube, Twitter, Instagram), through these channels, information about the university and its characteristics are broadcasted, as well as any new information related to its global position. Such activities help students better understand the university identity, which in turn enhances their perception of the attractiveness of the university brand and drives them to develop a self-identification relationship with the university.
- Design and implement social responsibility programs and activities toward students themselves and society. For example, the University of Granada in Spain created a unit called 'environmental quality unit', through which it works to improve students' awareness of

environmental issues by providing volunteer activities and environmental education programs. Such activities help universities to better position themselves in students' minds which in turn contributes to strengthening their relationship with the university.

Second, the crucial role that university brand attractiveness and university brand identification has in generating student satisfaction suggests that university marketers could go beyond the classic strategies of student satisfaction such as service quality and high-quality academic support to develop strategic branding campaigns to better position the university in students' minds to achieve a greater level of student satisfaction.

Finally, the important role that student satisfaction has in shaping student trust and student loyalty toward the university gives further support to the notion that student satisfaction is a critical issue on the agenda of the universities administrators to build long term relationship with students and engender their supportive and loyal behaviors toward the university.

7.3 Limitations and Directions for Future Research

As with any study of this nature, this study is not without limitations. Thus, the results of this study must be considered in light of several limitations, these limitations should not undermine the importance of the valuable insights and significance findings offered in this research but it points to several issues in need of further investigation as potential avenues for future studies.

1. A cross-sectional survey was used in this study, which helps determine the directional relationships among variables, but it restricts the ability to assert the causal inferences. Future studies could use a longitudinal design to understand the causal linkage in the hypothesized relationships of the study and trace students' identification with the university and their attitudes and behaviors toward the university over time.
2. The findings draw on data that came from Spanish students, in which Spain is a collectivistic society. Future research could apply this framework in more individualistic societies and compare its applicability cross-culturally to enhance the generalizability of the results.

3. Given that a predetermined sampling frame is not available, the data was collected using a non-probability sampling technique. Thus, caution should be exercised on the generalizability of the findings of this study. Future research could investigate the current research model with a more representative sample for more validation.
4. Since the sample is confined to undergraduate students from different Spanish faculties of business and economics, assessing the model through a more varied sample population from students of different academic disciplines (e.g. science, humanities, sports) is recommended to increase the generalizability of the research model.
5. The explained variance in university brand identification by the antecedents that have been investigated in this study was 28.4%. Thus, it could be of interest for future studies to study other variables as possible antecedents of university brand identification and investigate a more comprehensive framework for the antecedents of university brand identification that incorporates both affective and cognitive antecedents to provide a deep understanding of the topic of university brand identification.
6. The current study relates university brand identification to three valuable consequences: student satisfaction, student trust, and student loyalty, future studies might relate university brand identification to student's in-role behaviors such as academic performance and student involvement.
7. Only the moderating effect of gender that has been verified in this study, it could be interesting for future research to analyze the influence of other moderating effects such as the academic year in the case of current students or students level in case of undergraduate and postgraduate students. Also, considering the perspective of national versus international students is recommended.

CHAPTER 7 IN SPANISH

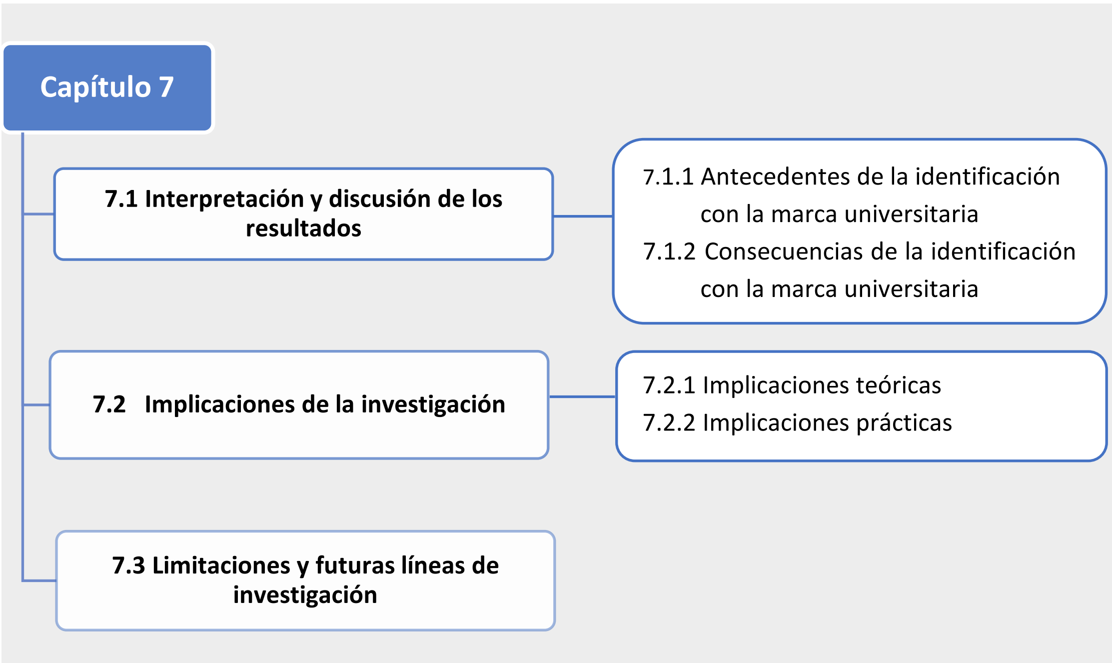
CAPÍTULO 7
DISCUSIÓN, CONCLUSIONES E IMPLICACIONES

- Interpretación y Discusión de los Resultados
- Implicaciones de la Investigación
- Limitaciones y Futuras Líneas de Investigación

DISCUSIÓN, CONCLUSIONES E IMPLICACIONES

El presente capítulo tiene por objetivo ofrecer una discusión e identificar las conclusiones e implicaciones derivadas de la investigación. El capítulo comienza con la interpretación y discusión de los resultados alcanzados en el capítulo anterior y en relación con la revisión de la literatura llevada a cabo. A continuación, se examinan las consecuencias teóricas y prácticas derivadas de esos resultados. El capítulo termina esbozando las limitaciones de este estudio y las propuestas para futuras investigaciones. En la figura 7.1 se muestra la estructura del capítulo.

Figura 7.1 Estructura del Capítulo Siete



7.1 Interpretación y Discusión de los Resultados

El objetivo general de este estudio es proporcionar un marco conceptual integral de los antecedentes cognitivos de la identificación con la marca universitaria y sus consecuencias en las actitudes y comportamientos de los estudiantes hacia la universidad desde la perspectiva de la identidad social. En un intento de avanzar en el conocimiento sobre esta cuestión se propusieron cinco cuestiones de investigación. Para avanzar en estas cuestiones de investigación y la consecución del objetivo principal, se han propuesto una serie de objetivos más específicos. En la tabla 7.1 se presenta un resumen de cada una de las cuestiones de investigación y su correspondiente objetivo de investigación, así como las hipótesis formuladas para responder a cada cuestión de investigación y sus resultados. En las subsecciones siguientes se presenta una discusión detallada de las conclusiones del estudio.

7.1.1 Antecedentes de la Identificación con la Marca Universitaria

El primer objetivo de este estudio fue investigar la influencia de varios factores de antecedentes cognitivos en la identificación con la marca universitaria. Precisamente, el modelo conceptual (Figura 4.3) proponía cinco factores cognitivos antecedentes de la identificación con la marca universitaria: el atractivo de la marca universitaria (Hipótesis 1), la similitud entre la universidad y el yo (Hipótesis 3), el prestigio de la universidad (Hipótesis 5), la distintividad de la universidad (Hipótesis 7) y la responsabilidad social de la universidad (Hipótesis 9). Los resultados empíricos apoyaron parcialmente estas afirmaciones. El atractivo de la marca universitaria (Hipótesis 1), la similitud entre la universidad y el yo (Hipótesis 3) y la responsabilidad social de las universidades (Hipótesis 9) se consideraron antecedentes de la identificación con la marca universitaria. Sin embargo, los resultados sugirieron que el prestigio de la universidad (Hipótesis 5) y la distintividad de la universidad (Hipótesis 7) no influyen significativamente en la identificación con la marca universitaria. En las secciones siguientes se presenta un análisis más detallado de cada uno de estos resultados.

Tabla 7.1 Cuestiones de investigación, Objetivos e Hipótesis de Investi

Cuestiones de Investigación	Objetivos de Investigación	Hipótesis de Investigación
1. ¿Influyen en la identificación con la marca universitaria el atractivo de la marca universitaria, la similitud entre la universidad y el yo, el prestigio de la universidad, la distintividad de la universidad y la responsabilidad social de la universidad (como variables de antecedentes cognitivos)?	1. Examinar la influencia del atractivo de la marca universitaria, la similitud entre la universidad y el yo, el prestigio de las universidades, el carácter distintivo de las universidades y la responsabilidad social de las universidades (como antecedentes) en la identificación con la marca universitaria.	Para lograr este objetivo de in hipótesis de investigación, a cont de las hipótesis y sus resultados:
		H1: Atractivo de la marca u Identificación con la marca
		H3: Similitud entre la universi Identificación con la marca
		H5: Prestigio universitario → Iden marca universitaria
		H7: Distinción universitaria → Id la marca universitaria
		H9: Responsabilidad social u Identificación con la marca
2. ¿Tiene el atractivo de la marca universitaria un papel mediador en la relación entre la similitud entre la universidad y el yo, el prestigio de la universidad, la distintividad de la universidad y la responsabilidad social de la universidad, y la identificación con la marca universitaria?	2. Examinar el efecto mediador del atractivo de la marca universitaria en las relaciones entre la similitud entre la universidad y el yo, el prestigio de la universidad, la distintividad de la universidad y la responsabilidad social de la universidad y la identificación con la marca universitaria.	Se proponen cinco hipótesis d objetivo de investigación, a contin las hipótesis y sus resultados
		H2: Similitud entre la universi Atractivo de la marca unive
		H4: Prestigio universitario → marca universitaria
		H6: Distinción de la universidad la marca de la universidad

Cuestiones de Investigación	Objetivos de Investigación	Hipótesis de Investigación
		H8: Responsabilidad social u Atractivo de la marca unive
		H10a: Similitud entre la univers Atractivo de la marca u Identificación con la marca
		H10b: Prestigio universitario → marca universitaria → Ider marca universitaria
		H10c: Distinción universitaria → marca universitaria → Ider marca universitaria
		H10d: Responsabilidad social u Atractivo de la marca u Identificación con la marca
3. ¿Influye la identificación con la marca universitaria en la satisfacción de los estudiantes, la confianza de los estudiantes, la lealtad de los estudiantes (como variables de consecuencias)?	3. Examinar la influencia de la identificación con la marca universitaria en la satisfacción, la confianza y la lealtad de los estudiantes (como variables de consecuencias).	Se proponen tres hipótesis para lo a continuación, se presenta el resultados:
		H12: Identificación con la marca Satisfacción del estudiante
		H14: Identificación con la marca Confianza del estudiante
		H17: Identificación con la marca Fidelización de estudiantes

Cuestiones de Investigación	Objetivos de Investigación	Hipótesis de Investigación
4. ¿La satisfacción y la confianza de los estudiantes en la universidad tienen un papel mediador en la relación entre la identificación con la marca universitaria y la lealtad de los estudiantes?	4. Examinar el efecto mediador de la satisfacción de los estudiantes y la confianza de los estudiantes en la universidad en la relación entre la identificación con la marca universitaria y la lealtad de los estudiantes.	Para lograr este objetivo de inv hipótesis de investigación, a cont de hipótesis y sus resultados:
		H15: Satisfacción del estudiante - estudiante
		H18: Satisfacción del estudiante estudiante
		H19: Confianza del estudiante estudiante
		H21a: Identificación con la marca Satisfacción del estudiante del estudiante
		H21b: Identificación con la marca Confianza del estudiante estudiante
		H21c: Identificación con la marca Satisfacción del estudiante - estudiante → Lealtad del es
5. ¿Tiene la identificación con la marca universitaria un papel mediador en las relaciones entre el atractivo de la marca universitaria y la satisfacción de	5. Examinar el efecto mediador de la identificación con la marca universitaria en las relaciones entre el atractivo de la marca universitaria y la satisfacción de	Para lograr este objetivo de inv hipótesis de investigación, a cont de las hipótesis y sus resultados: -
		H11: Atractivo de la marca u Satisfacción del estudiante

Cuestiones de Investigación	Objetivos de Investigación	Hipótesis de Investigación
los estudiantes, la confianza de los estudiantes y la lealtad de los estudiantes?	los estudiantes, la confianza de los estudiantes y la lealtad de los estudiantes.	**H13:** Atractivo de la marca u Confianza de los estudiante
		H16: Atractivo de la marca u Fidelización de estudiante
		H20a: Atractivo de la marca u Identificación con la mar → Satisfacción del estudi
		H20b: Atractivo de la marca u Identificación con la mar → Confianza de los estuc
		H20c: Atractivo de la marca u Identificación con la mar → Fidelización de estudia

7.1.1.1 Atractivo de la Marca Universitaria

El propósito de la primera hipótesis era examinar la influencia del atractivo de la marca universitaria en la identificación con la misma. Los resultados revelaron que el atractivo de la marca universitaria influye significativamente en la identificación con la marca universitaria, e incluso se identificó que resulta ser el predictor más fuerte de la identificación con la marca universitaria. Este resultado indica que es más probable que los estudiantes se identifiquen con una marca universitaria cuando perciben que la marca universitaria es atractiva y satisface parcialmente una o más de sus necesidades básicas de autodefinición. Esta relación contribuye a alcanzar una mayor comprensión del papel crucial que desempeña el atractivo de la marca universitaria para reforzar la identificación con la marca. Este resultado es coherente con el estudio de Balmer *et al.* (2020), en el que demostraron el efecto positivo del atractivo de la marca universitaria en la identificación de los estudiantes internacionales de posgrado de negocios con la marca universitaria. Además, este resultado ofrece apoyo a la noción prevaleciente en la literatura de comercialización de que el atractivo de una empresa/marca es un precursor de la identificación del cliente con esa empresa/marca (Elbedweihy *et al.*, 2016; Currás-Pérez *et al.*, 2009; Kim *et al.*, 2001; Marin y de Maya, 2013; Marin *et al.*, 2009).

7.1.1.2 Similitud entre la Universidad y el Yo

La auto semejanza puede ayudar a las personas a satisfacer sus necesidades de autodefinición de continuidad o verificación (Elbedweihy *et al.*, 2016; Lam *et al.*, 2013; Tuškej *et al.*, 2013). La tercera hipótesis examinó si la similitud entre la universidad y el yo influye en la identificación con la marca universitaria. Los hallazgos revelaron que la similitud entre la universidad y el yo influye significativamente en la identificación con la marca universitaria. Este resultado indica que los estudiantes tienen más probabilidades de identificarse con una marca universitaria cuando perciben una similitud entre ellos y la universidad para satisfacer sus necesidades autodefinidas de continuidad o verificación. Este resultado ofrece apoyo a los estudios anteriores que documentaron el papel crucial de la semejanza entre la universidad y el yo en el cultivo de relaciones significativas con los estudiantes (Balmer *et al.*, 2020; Fazli-Salehi *et al.*, 2019; Pinna *et al.*, 2018; Schlesinger *et al.*, 2017). Por ejemplo, Fazli-Salehi *et al.* (2019) encontraron que la similitud entre la universidad y el yo que se manifiesta en la congruencia de valores (es decir, la similitud entre los valores propios de los estudiantes y los valores de la universidad) está relacionada positivamente con la identificación con la marca universitaria. Este hallazgo es consistente con los estudios previos de comportamiento organizacional que apoyaron la influencia positiva de la similitud entre la organización y el yo en la identificación organizacional (Cable y DeRue, 2002; Cinar, 2019; Griepentrog *et al.,* 2012) y su contraparte en la literatura de marketing (Bhattacharya and Sen, 2003; Stokburger-Sauer *et al.*, 2012; Lam *et al.*, 2013; Tuškej *et al.*, 2013; Elbedweihy *et al.*, 2016; Wolter *et al.*, 2016; Han *et al.*, 2019; Shokri y Alavi, 2019).

7.1.1.3 Prestigio Universitario

En la literatura sobre comportamiento organizacional, basándose en la noción predominante de que los empleados buscan identificarse más con organizaciones que son evaluadas favorablemente por personas externas para satisfacer sus necesidades de superación personal y mejorar su autoestima, el prestigio organizacional es bien reconocido como un precursor importante de la identificación organizacional (Bergami y Bagozzi, 2000; Dukerich *et al.*, 2002; Dutton *et al.*, 1994; Fuller *et al.*, 2006; Kim *et al.*, 2010; Smidts *et al.*, 2001). Desde la perspectiva del marketing, los consumidores también buscan identificarse con empresas o marcas de prestigio para satisfacer sus necesidades de superación personal al verse a sí mismos reflejados a través de esas empresas/marcas (Bhattacharya y Sen, 2003). Basándose en este argumento, varios estudios han proporcionado evidencia empírica de la influencia positiva de la percepción del cliente sobre el prestigio de una empresa/marca en la identificación del cliente (Bhattacharya *et al.*, 1995; Han *et al.*, 2019; Kuenzel y Halliday, 2008; Tuškej y Podnar, 2018).

La hipótesis 5 examinó si la percepción de los estudiantes del prestigio de la universidad influye en la identificación con la marca universitaria. Contrariamente a lo esperado, los resultados revelaron lo contrario. Precisamente, el prestigio de la universidad, en presencia de otros antecedentes (es decir, atractivo de la marca universitaria, similitud entre la universidad y el yo, distinción universitaria y responsabilidad social universitaria), no tiene una influencia significativa en la identificación con la marca universitaria. Este resultado no es consistente con estudios previos en los que se encontró que el prestigio de la universidad mejoraba parcialmente la identificación con la marca universitaria (Balaji *et al.*, 2016; Fazli-Salehi *et al.*, 2019; Mael y Ashforth, 1992; Pinna *et al.*, 2018; Stephenson y Yerger, 2014a, 2014b). Por ejemplo, Balaji *et al.* (2016) encontraron que la percepción de los estudiantes sobre el prestigio de la universidad influye significativamente en la identificación con la marca universitaria. Fazli-Salehi *et al.* (2019) en su estudio sobre la identificación de los estudiantes con las marcas universitarias entre los estudiantes actuales de las universidades públicas de Irán informaron sobre la influencia positiva del prestigio de la universidad en la identificación con las marcas universitarias. Una explicación probable de este hallazgo contradictorio puede ser que la percepción percibida del prestigio de la universidad, en presencia de las otras variables antecedentes de identificación con la marca universitaria incorporadas en el modelo de estudio, se considere menos valiosa para los estudiantes. Esta opinión es consistente con los hallazgos de So *et al.* (2017) y Stokburger-Sauer *et al.* (2012), en el que se encontró que el prestigio de la marca no juega un papel significativo en el refuerzo de la identificación del consumidor con una marca en presencia de otros antecedentes cognitivos (por ejemplo, similitud entre la marca y el yo, distinción percibida).

Además, el papel mediador del atractivo de la marca universitaria en la relación entre el prestigio de la universidad y la identificación con la marca universitaria (Hipótesis 10b), como se discutirá más adelante, ofreció importantes conocimientos para explicar este hallazgo contradictorio, ya que reveló que el atractivo de la marca universitaria media completamente la relación entre el prestigio de la universidad y la identificación con la marca universitaria. En otras palabras, el prestigio de la universidad ya no afecta la identificación con la marca universitaria en presencia del atractivo de la marca universitaria que captura la percepción general percibida de una identidad universitaria.

7.1.1.4 Distinción Universitaria

La teoría de la identidad social afirma que los individuos buscan acentuar su propio carácter distintivo en contextos interpersonales (Tajfel y Turner, 1986). Por tanto, las personas para distinguirse y mejorar su autoestima se inclinan más a vincular sus identidades con entidades (por ejemplo, personas, grupos, organizaciones, marcas) que perciben como más distintivas (Ashforth y Mael, 1989; Bhattacharya y Sen, 2003; Dutton *et al.*, 1994). La hipótesis 7 examinó si la percepción de los estudiantes sobre el carácter distintivo de una universidad influye en la identificación con la marca universitaria. Contrariamente a lo esperado, los resultados revelaron lo contrario. Precisamente, la diferenciación universitaria percibida en presencia de otros antecedentes de identificación con la marca universitaria incorporados en el modelo de estudio no influye significativamente en la identificación con la marca universitaria. Este hallazgo es consistente con los resultados del estudio de Fazli-Salehi *et al.* (2019) en el que no mostraron apoyo a la influencia directa del carácter distintivo de la marca universitaria en la identificación de los estudiantes con las marcas universitarias. Además, está de acuerdo con los hallazgos de So *et al.* (2017) ya que no pudieron respaldar la influencia directa del carácter distintivo de la marca en la identificación del cliente con la marca en el contexto de la industria hotelera. Por otro lado, este resultado no es consistente con los estudios de Balmer *et al.* (2020) y Mael y Ashforth (1992) en los que han informado de la influencia positiva de la percepción del carácter distintivo de una universidad en la identificación con la marca universitaria.

Una explicación probable de estos hallazgos contradictorios puede ser que la percepción de la distinción de una universidad, en presencia de las otras variables antecedentes de la identificación con la marca universitaria incorporadas en el modelo del estudio, se considera menos valiosa para los estudiantes. Además, la presencia del atractivo de la marca universitaria como variable mediadora en la relación entre el carácter distintivo de la universidad y la identificación con la marca universitaria (Hipótesis 10c), como se discutirá en otro punto de este capítulo, ofreció importantes claves para explicar estos hallazgos contradictorios, como es que reveló que el atractivo de la marca universitaria media plenamente la relación entre el carácter distintivo de la universidad y la identificación con la marca universitaria. En otras palabras, el carácter distintivo de la universidad no afecta a la identificación con la marca universitaria en presencia del atractivo de la marca universitaria, que refleja la percepción general de una identidad universitaria.

7.1.1.5 Responsabilidad Social Universitaria

El propósito de la Hipótesis 9 fue examinar la influencia de la responsabilidad social universitaria en la identificación con la marca universitaria. Los resultados mostraron que la responsabilidad social universitaria influye significativamente en la identificación con la marca universitaria. Esto indica que los estudiantes tienen más probabilidades de identificarse con una marca universitaria cuando conocen las iniciativas de responsabilidad social universitaria y tienen una percepción favorable de la imagen de responsabilidad social de la universidad. Es decir, es más probable que los estudiantes se identifiquen con aquellas universidades con mayores niveles de responsabilidad social universitaria para poder expresar una imagen más ética y social y aumentar su autoestima. Este resultado es consistente con los hallazgos del estudio de El-Kassar *et al.* (2019) en el que encontraron que la responsabilidad social universitaria influye significativamente en la identificación con la marca universitaria. Este resultado suma apoyo a la escasa literatura que se refirió a la importancia de la responsabilidad social universitaria como una importante herramienta de marketing que tiene consecuencias favorables en las actitudes y comportamientos hacia una universidad (El-Kassar *et al.*, 2019; Ismail y Shujaat, 2019; Sánchez-Hernández y Mainardes, 2016; Vasquez *et al.*, 2015). Este resultado también es consistente con los estudios de comportamiento organizacional en los que se encontró que las percepciones de los miembros organizacionales de la imagen social de su organización juegan un papel significativo en el refuerzo de la identificación organizacional (Kim *et al.*, 2010; Larson *et al.*, 2008; Lythreatis *et al.*, 2019) y su contraparte en la literatura de marketing en la que se descubrió que la responsabilidad social empresarial es un precursor importante de una identificación consumidor-empresa/marca (He y Li, 2011; Lichtenstein *et al.*, 2004; Marin *et al.*, 2009; Martínez y Rodríguez del Bosque, 2013; Pérez y Rodríguez del Bosque, 2015).

7.1.1.6 Efecto Mediador del Atractivo de la Marca Universitaria

El segundo objetivo de este estudio fue examinar el efecto mediador del atractivo de la marca universitaria en las relaciones entre la similitud entre la universidad y el yo, el prestigio universitario, la distinción universitaria y la responsabilidad social universitaria con respecto a la identificación con la marca universitaria. Se desarrollaron cinco hipótesis para lograr este objetivo de investigación (Hipótesis 2, 4, 8 y 10). Precisamente, las Hipótesis (2, 4, 6 y 8) predicen el efecto directo de la similitud entre la universidad y el yo, el prestigio universitario, la distinción universitaria y la responsabilidad social universitaria sobre el atractivo de la marca universitaria. A continuación, la Hipótesis 10 que predice el efecto indirecto de la semejanza entre la universidad y el yo (Hipótesis 10a), el prestigio universitario (Hipótesis 10b), la distinción universitaria (Hipótesis 10c) y la responsabilidad social universitaria (Hipótesis 10d) sobre la identificación con la marca universitaria a través del atractivo de la marca universitaria.

Los resultados mostraron que los cuatro determinantes, la similitud entre la universidad y el yo (Hipótesis 2), el prestigio universitario (Hipótesis 4), el carácter distintivo de la universidad (Hipótesis 6) y la responsabilidad social universitaria (Hipótesis 8), tienen un efecto directo y positivo considerable en el atractivo de la marca universitaria, ya que estos cuatro determinantes explican colectivamente una cantidad sustancial de la variación en el atractivo de la marca universitaria. Estos resultados respaldan la noción de que la percepción de los individuos de las características de identidad de una marca que se relacionan con sus necesidades clave de autodefinición (es decir, autoverificación, mejoramiento personal y carácter distintivo) son determinantes clave para el atractivo percibido de la identidad de marca (Bhattacharya y Sen, 2003; Dutton *et al.*, 1994). Asimismo, estos resultados dan soporte a la idea de que el rol social de una marca/empresa son relevantes para el atractivo de esa empresa/identidad de marca sin requerir variables intermedias (Currás-Pérez *et al.*, 2009; Marin y Ruiz, 2007; Sen y Bhattacharya, 2001). Los resultados de este estudio mostraron que estos argumentos son válidos también en el contexto de la relación estudiante-universidad. En otras palabras, cuanto más coincida la identidad de marca universitaria con el sentido de "sí mismo" de los estudiantes (es decir, similitud entre la universidad y el yo), más atractiva será esa identidad de marca universitaria para los estudiantes, no solo porque encuentren su información auto relevante e inherente a la identidad universitaria, sino también porque dicha identidad de marca universitaria les permite mantener un sentido coherente de quiénes son. Asimismo, la percepción de los estudiantes de una identidad de marca universitaria como distintiva aumenta el atractivo de esa identidad de marca universitaria, ya que satisface su necesidad de distinguirse y diferenciarse, aumentando la distancia psicológica en relación con los estudiantes de otras universidades competidoras (Currás-Pérez *et al.,* 2009; Kim *et al.*, 2001). Estos resultados también indican que el atractivo de la identidad de una marca universitaria probablemente esté determinado en parte por su prestigio percibido y su rol social, que se potencian desde el atractivo de esa marca universitaria como un objetivo de identificación para satisfacer las necesidades de superación personal de los estudiantes y enriquece su sentido de autoestima.

Los resultados de la Hipótesis 10 mostraron apoyo empírico al efecto indirecto de la similitud entre la universidad y el yo (Hipótesis 10a), el prestigio universitario (Hipótesis 10b), la distinción universitaria (Hipótesis 10c) y la responsabilidad social universitaria (Hipótesis 10d) en la identificación con la marca universitaria a través del atractivo de la marca universitaria. Estos hallazgos confirman el papel mediador del atractivo de la marca universitaria en estas relaciones. Los resultados de la Hipótesis 10a, 10b y 10c son coherentes con los alcanzados en el estudio de Bhattacharya y Sen (2003) en el que propusieron que el atractivo de la marca media la relación entre los antecedentes impulsados por las necesidades clave de autodefinición del consumidor y la identificación del consumidor con la empresa/marca. Los hallazgos de la Hipótesis 10d están de acuerdo con los hallazgos del estudio de El-Kassar *et al.* (2019) en el que documentaron el papel mediador del atractivo de la marca universitaria en la relación establecida entre la responsabilidad social universitaria y la identificación con la marca universitaria. Las relaciones mediadoras entre estos constructos proporcionan información importante para comprender las relaciones intermedias entre estos constructos. Por ejemplo, los resultados del papel mediador del atractivo de la marca universitaria revelaron que el atractivo de la marca universitaria tiene un papel totalmente mediador en la relación entre el prestigio universitario y el carácter distintivo de la universidad y la identificación con la marca universitaria, lo que podría ayudar a explicar los hallazgos contradictorios en las relaciones entre estos dos variables antecedentes e identificación con la marca universitaria. En otras palabras, la percepción de una identidad de marca universitaria en términos de su prestigio y carácter distintivo ya no afecta a la identificación con la marca universitaria en presencia del atractivo de la marca universitaria, que captura la percepción general percibida de las características de la identidad universitaria. Por otro lado, el atractivo de la marca universitaria tiene un papel mediador complementario en la relación entre la similitud entre la universidad y el yo y la responsabilidad social universitaria y la identificación con la marca universitaria, ya que en presencia del atractivo de la marca universitaria estas dos variables aún tienen un efecto directo significativo sobre la identificación con la marca universitaria. Estos resultados resaltan la importancia de la similitud entre la universidad y el yo y la responsabilidad social universitaria como importantes impulsores de la identificación con la marca universitaria.

7.1.2 Consecuencias de la Identificación con la Marca Universitaria

El segundo objetivo de este estudio fue investigar la influencia de la identificación con la marca universitaria en las actitudes y comportamientos de los estudiantes de hacia la universidad. Más específicamente, el modelo conceptual (Figura 4.3) propuso tres factores de consecuencia de la identificación con la marca universitaria: satisfacción del estudiante (Hipótesis 12), confianza del estudiante (Hipótesis 14) y lealtad del estudiante (Hipótesis 17). Los resultados empíricos apoyaron parcialmente estas afirmaciones porque revelaron que la satisfacción de los estudiantes (Hipótesis 12) y la lealtad de los estudiantes (Hipótesis 17) se consideraron factores de consecuencias de la identificación con la marca universitaria. Sin embargo, los resultados sugirieron que la identificación con la marca universitaria no tiene una influencia directa significativa en la confianza de los estudiantes (Hipótesis 14). Las siguientes secciones presentan una discusión de cada uno de estos hallazgos con más detalle.

7.1.2.1 Satisfacción del Estudiante

El propósito de la Hipótesis 12 fue examinar la influencia de la identificación con la marca universitaria en la satisfacción de los estudiantes. Aunque los estudios existentes que abordaron la relación entre la satisfacción de los estudiantes y la identificación con la marca universitaria han informado resultados mixtos tanto en la importancia como en la direccionalidad del vínculo entre los dos constructos, los resultados de este estudio revelaron que la identificación con la marca universitaria es un factor importante para la satisfacción de los estudiantes. Este resultado es consistente con los hallazgos anteriores que confirmaron la influencia significativa de la identificación con la marca universitaria en la satisfacción de los estudiantes (Heffernan *et al.*, 2018; Wilkins *et al.*, 2016). Además, es consistente con los hallazgos dominantes en la literatura de marketing en el vínculo entre la identificación del cliente y la satisfacción del cliente, ya que estos hallazgos demostraron que los niveles más altos de identificación del cliente conducen a un juicio general más favorable sobre el objetivo de identificación y los clientes probablemente seguirán satisfechos con ese objetivo incluso cuando sus expectativas no se cumplan por completo (Camarero y Garrido, 2011; He *et al.*, 2012; Pérez y Rodríguez del Bosque, 2015; Popp y Woratschek, 2017). Los hallazgos de este estudio demuestran que este argumento es válido también en el contexto de la relación estudiante-universidad, lo que significa que el desarrollo de una relación de identificación con una marca universitaria conducirá a un juicio general más favorable sobre esa marca universitaria y es más probable que los estudiantes permanezcan satisfechos con la universidad incluso cuando sus expectativas no se cumplen plenamente a través de la universidad.

7.1.2.2 Confianza del Estudiante

El objetivo de la Hipótesis 14 fue investigar si la identificación con la marca universitaria influye en la confianza de los estudiantes en la universidad. Contrariamente a lo esperado, los resultados de los resultados no muestran apoyo a esta relación. Este resultado no es consistente con la literatura disponible que abordó el vínculo entre la identificación con la marca universitaria y la confianza de los estudiantes en la universidad (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016). Como se explicó anteriormente, estos estudios han informado hallazgos discordantes en la direccionalidad de la relación entre los dos constructos. Por un lado, Nevzat *et al.* (2016) han documentado la influencia positiva significativa de la identificación con la marca universitaria en la confianza de los estudiantes, ya que los estudiantes desarrollan niveles más altos de confianza en la universidad cuando se identifican con esa marca universitaria. Por otro lado, Heffernan *et al.* (2018) y Myers *et al.* (2016) informaron lo contrario y documentaron la influencia positiva significativa de la confianza de los estudiantes en la identificación con la marca universitaria, lo que significa que cuando los estudiantes creen que su universidad los trata de manera justa y toma decisiones con preocupación en sus mejores intereses, los estudiantes se inclinan más a identificarse con la universidad. Una explicación probable de la contradicción entre los hallazgos de este estudio y los estudios previos en la relación entre la identificación con la marca universitaria y la confianza de los estudiantes en la universidad puede deberse a que en presencia de la satisfacción de los estudiantes (en la misma dirección de la relación), la confianza de los estudiantes se considera menos valiosa para los estudiantes. En otras palabras, en presencia de la satisfacción del estudiante, que captura la evaluación subjetiva del estudiante de los resultados generales y las experiencias con la educación y la universidad, el vínculo directo entre la identificación con la marca universitaria y la confianza del estudiante ya no será significativo. Esta visión es consistente con el estudio de Martínez y Rodríguez del Bosque (2013) donde no se pudo apoyar la importancia del vínculo entre los dos constructos de confianza del cliente y la identificación del cliente con la marca en presencia de satisfacción del cliente. Además, los resultados de la evaluación de las posibles relaciones mediadoras incorporadas en el modelo conceptual de este estudio proporcionaron apoyo empírico a este argumento, ya que reveló que la satisfacción del estudiante media plenamente la relación entre la identificación con la marca universitaria y la confianza del estudiante.

7.1.2.3 Fidelización de Estudiantes

La literatura sobre el comportamiento organizacional ha documentado bien que la identificación del individuo con una organización son una base para la lealtad y los comportamientos de apoyo del individuo hacia esa organización (Bagozzi y Bergami 2002; Edwards, 2005; Jones, 2010). Además, la literatura de marketing proporciona un amplio apoyo a la noción de que la identificación de los clientes con una empresa/marca está vinculada a su lealtad hacia esa empresa/marca (Berrozpe *et al.*, 2019; Han *et al.*, 2020; Homburg *et al.*, 2009; Kuenzel y Halliday, 2010; Stokburger-Sauer *et al.*, 2012). El propósito de la Hipótesis 17 fue examinar la influencia de la identificación con la marca universitaria en la lealtad de los estudiantes. Los resultados revelaron que la identificación con la marca universitaria es un predictor importante de la lealtad de los estudiantes. Este resultado indica que la identificación con la marca universitaria hace que los estudiantes se apeguen psicológicamente y se preocupen por la universidad porque la perciben como parte de sí mismos, lo que los motiva a comprometerse con el logro de sus objetivos, a realizar más esfuerzos voluntarios en su nombre y mantener una relación sólida con la universidad después de la graduación. Este hallazgo es consistente con los estudios previos que demostraron apoyo a la influencia positiva de la identificación con la marca universitaria en la lealtad hacia la universidad en el contexto de la relación de los estudiantes con la universidad (El-Kassar *et al.*, 2019; Fazli-Salehi *et al.*, 2019; Heffernan *et al.*, 2018) y también en el contexto de la relación de los egresados con la universidad (Palmer *et al.*, 2016; Rodríguez *et al.*, 2019).

7.1.2.4 Efecto Mediador de la Satisfacción y la Confianza del Estudiante

El cuarto objetivo de este estudio fue examinar el efecto mediador de la satisfacción y la confianza de los estudiantes en las relaciones entre la identificación con la marca universitaria y la lealtad de los estudiantes. Se desarrollaron cuatro hipótesis para lograr este objetivo de investigación (Hipótesis 15, 18, 19 y 21). Precisamente, las Hipótesis (15, 18 y 19) predicen el efecto directo entre la satisfacción del estudiante, la confianza del estudiante y la lealtad del estudiante. A continuación Hipótesis 21, que predice el efecto indirecto de la identificación con la marca universitaria sobre la lealtad del estudiante a través de la satisfacción del estudiante (Hipótesis 21a), la confianza del estudiante (Hipótesis 21b), la satisfacción del estudiante y la confianza del estudiante de forma secuencial (Hipótesis 21c) y la responsabilidad social de la universidad (Hipótesis 10d) en identificación con la marca universitaria a través del atractivo de la marca universitaria.

Los resultados para la Hipótesis 15 mostraron que la satisfacción de los estudiantes es un factor crucial para la confianza de los estudiantes, este resultado indica que la satisfacción general de los estudiantes genera confianza en la universidad porque es indicativo de la consistencia de la universidad en el cumplimiento de sus promesas. Este resultado es consistente con la abundante evidencia que la literatura sobre marketing aporta en el ámbito de la educación superior, que respalda el papel fundamental de la satisfacción en la confianza de los estudiantes (Rojas-Méndez *et al.*, 2009; Frasquet *et al.*, 2012; Schlesinger *et al.*, 2017), así como de la literatura de marketing que documenta el papel fundamental de la satisfacción del cliente en la confianza del cliente (Chaudhuri y Holbrook, 2001; Delgado-Ballester y Munuera-Alemán, 2001; He *et al.*, 2012; Schirmer *et al.*, 2018).

La literatura sobre marketing en el ámbito de la educación superior aporta amplia evidencia de la fuerte influencia de la satisfacción de los estudiantes en la lealtad y las conductas de apoyo de los estudiantes (Brown y Mazzarol, 2009; Clemes *et al.*, 2008; Helgesen y Nesset, 2007a, 2007b; Ledden *et al.*, 2011; Schlesinger *et al.*, 2015; Schlesinger *et al.*, 2017). El resultado de la Hipótesis 18 ofreció apoyo a esta literatura, ya que reveló que la satisfacción de los estudiantes tiene un papel fundamental en la lealtad de los estudiantes.

El propósito de la Hipótesis 19 fue examinar la influencia de la confianza de los estudiantes en la lealtad de los estudiantes. Como se planteó la hipótesis, los resultados del estudio actual mostraron apoyo a la importancia de la influencia de la confianza de los estudiantes en la lealtad al estudio. Este resultado es consistente con la abundante evidencia de respaldo en la literatura sobre marketing de educación superior, que respalda el importante papel de la confianza de los estudiantes en la formación de la lealtad de los estudiantes (Carvalho y de Oliveira Mota, 2010; Hennig-Thurau *et al.*, 2001; Schlesinger *et al.*, 2017).

El propósito de la Hipótesis 21 fue examinar si la identificación con la marca universitaria influye en la lealtad de los estudiantes de manera indirecta a través de la satisfacción de los estudiantes (Hipótesis 21a), la confianza de los estudiantes (Hipótesis 21b) y la satisfacción de los estudiantes y la confianza de los estudiantes de manera secuencial (Hipótesis 21c) para predecir el papel mediador de la satisfacción de los estudiantes y la confianza de los estudiantes en la relación entre la identificación con la marca universitaria y la lealtad de los estudiantes. Los resultados de la Hipótesis 21 mostraron apoyo al efecto indirecto de la identificación con la marca universitaria sobre la lealtad de los estudiantes a través de la satisfacción de los estudiantes (Hipótesis 21a) y a través de la satisfacción y la confianza de los estudiantes de manera secuencial (Hipótesis 21c), mientras que el efecto indirecto a través de la confianza de los estudiantes no lo fue. Estos resultados y los de la Hipótesis 17 demuestran el papel mediador complementario de la satisfacción del estudiante en la relación entre la identificación con la marca universitaria y la lealtad del estudiante. Además, estos resultados respaldan el papel mediador complementario de la satisfacción del estudiante y la confianza del estudiante de forma secuencial en la relación entre la identificación con la marca universitaria y la lealtad del estudiante, mientras que la confianza del estudiante solo no tiene un papel mediador en esta relación. Estos resultados indican que la identificación con la marca universitaria no solo afecta la lealtad de los estudiantes, sino que también mejora la percepción de los estudiantes de las relaciones de intercambio social que se manifiestan en la satisfacción y la confianza de los estudiantes. En otras palabras, estos resultados demuestran que el efecto de la identificación con la marca universitaria pasa por algunos estados psicológicos de los estudiantes, como la satisfacción y la confianza de los estudiantes. Estas relaciones de mediación son importantes porque brindan a los académicos una comprensión profunda de los efectos de interacción entre esos constructos.

7.1.2.5 Efecto Mediador de la Identificación con la Marca Universitaria

El último objetivo de este estudio fue examinar si la identificación con la marca universitaria tiene un papel mediador en la relación entre el atractivo de la marca universitaria y la satisfacción de los estudiantes, la confianza de los estudiantes y la lealtad de los estudiantes. Se desarrollaron cuatro hipótesis para lograr este objetivo de investigación (Hipótesis 11, 13, 16 y 20). Precisamente, las Hipótesis (11,13 y 16) predicen el efecto directo del atractivo de la marca universitaria sobre la satisfacción de los estudiantes (Hipótesis 11), la confianza de los estudiantes (Hipótesis 13) y la lealtad de los estudiantes (Hipótesis 16). A continuación, la Hipótesis 20, que predice el efecto indirecto del atractivo de la marca universitaria sobre la satisfacción de los estudiantes (Hipótesis 20a), la confianza de los estudiantes (Hipótesis 20b) y la lealtad de los estudiantes (Hipótesis 20c) a través de la identificación con la marca universitaria para predecir el papel mediador de la identificación con la marca universitaria en estas relaciones.

Los resultados de los resultados mostraron que el atractivo de la marca universitaria es un predictor importante de la satisfacción de los estudiantes (Hipótesis 11), la confianza de los estudiantes (Hipótesis 13) y la lealtad de los estudiantes (Hipótesis 16). Estos hallazgos muestran que las percepciones positivas de los estudiantes sobre el atractivo de la identidad de marca universitaria desempeñan un papel crucial en la mejora de la percepción de los estudiantes de las relaciones de intercambio social que se manifiestan en la satisfacción y la confianza de los estudiantes y también tienen un papel fundamental en la obtención de comportamientos de lealtad de los estudiantes hacia la universidad. Estos hallazgos están en línea con estudios previos que demostraron que la percepción de la imagen universitaria es un predictor importante de la satisfacción del estudiante (Brown y Mazzarol, 2009; Gibson, 2010; Palacio *et al.*, 2002; Schlesinger *et al.*, 2017), la confianza de los estudiantes (Schlesinger *et al.*, 2017) y la lealtad de los estudiantes directamente sin la necesidad de constructos intermedios (Brown y Mazzarol, 2009; Casidy y Wymer, 2016; Helgesen y Nesset, 2007a; Schlesinger *et al.*, 2015).

El propósito de la Hipótesis 20 fue examinar el efecto indirecto del atractivo de la marca universitaria sobre la satisfacción de los estudiantes (Hipótesis 20a), la confianza de los estudiantes (Hipótesis 20b) y la lealtad de los estudiantes (Hipótesis 20c) a través de la identificación con la marca universitaria. Los hallazgos mostraron apoyo al efecto indirecto del atractivo de la marca universitaria sobre la satisfacción de los estudiantes (Hipótesis 20a) y la lealtad de los estudiantes (Hipótesis 20c) a través de la identificación con la marca universitaria, mientras que el efecto indirecto sobre la confianza de los estudiantes no lo fue. Los resultados de las relaciones directas entre el atractivo de la marca universitaria y la satisfacción de los estudiantes (Hipótesis 11), la confianza (Hipótesis 13) y la lealtad de los estudiantes (Hipótesis 16)y las relaciones indirectas a través de la identificación con la marca universitaria las Hipótesis (20a, 20b, 20c) confirman el papel mediador complementario de la identificación con la marca universitaria en las relaciones entre el atractivo de la marca universitaria y la satisfacción del estudiante y entre el tractivo de la marca y la fidelización de los estudiantes. Estos resultados indican que el atractivo de la marca universitaria es un mecanismo poderoso que tiene una doble ruta para mejorar las relaciones de los estudiantes con la universidad. Un camino a través de la perspectiva de la identidad social ayudando a los estudiantes a satisfacer sus necesidades clave de autodefinición y un segundo camino, a través de la perspectiva del intercambio social, a través de algunos estados psicológicos del estudiante como la satisfacción y la confianza del estudiante. Además, estas relaciones de mediación son importantes para comprender profundamente los efectos de interacción entre esos constructos.

7.2 Implicaciones de la Investigación

En esta sección se presentan las contribuciones e implicaciones de esta tesis doctoral. Las implicaciones de esta tesis se pueden clasificar en dos grandes bloques, uno relacionado con las implicaciones teóricas, que se relaciona con las aportaciones que hace esta tesis en el ámbito académico y del conocimiento, y otro relacionado con las implicaciones prácticas, que se relaciona con las aportaciones que realiza esta tesis en el ámbito profesional del sector de la educación superior. Las siguientes secciones ofrecen una discusión detallada de estos dos tipos de implicaciones.

7.2.1 Implicaciones Teóricas

Este estudio ofrece información relevante sobre la investigación emergente en la identificación con la marca universitaria desde la perspectiva de la identidad social (Balaji *et al.*, 2016; Balmer *et al.*, 2020; Pinna *et al.*, 2018; Wilkins *et al.*, 2016) y el cuerpo del conocimiento sobre una relación estudiante-universidad (Arnett *et al.*, 2003; Helgesen y Nesset, 2007; Schlesinger *et al.*, 2017) que se pueden resumir de la siguiente manera:

1. Este estudio proporciona una comprensión integradora de los antecedentes cognitivos (es decir, los antecedentes impulsados por la satisfacción de las necesidades clave de autodefinición del individuo) de la identificación con la marca universitaria que, hasta ahora, solo se han examinado de forma aislada. Así, este es el primer trabajo que reunió el atractivo de la marca universitaria, la similitud entre la universidad y el yo, el prestigio universitario, el distintivo universitario y la responsabilidad social universitaria como factores antecedentes de la identificación con la marca universitaria, para brindar una comprensión integradora de la importancia de estos constructos en la predicción de la identificación con la marca universitaria.
2. Al incluir los constructos del atractivo de la marca universitaria, la similitud entre la universidad y el yo y la responsabilidad social universitaria, el estudio actual contribuye a la escasa literatura sobre estos constructos y su papel como impulsores relevantes para mejorar la relación de los estudiantes con la universidad. Por ejemplo, el atractivo de la marca universitaria (Balmer *et al.*, 2020), la similitud entre la universidad y el yo (Fazli-Salehi, *et al.*, 2019; Schlesinger *et al.*, 2017) y la responsabilidad social universitaria (Ismail y Shujaat, 2019; Sánchez - Hernández y Mainardes, 2016).
3. Al examinar el papel mediador del atractivo de la marca universitaria en las relaciones entre la similitud entre la universidad y el yo, el prestigio universitario, la distinción universitaria y la responsabilidad social universitaria y la identificación con la marca universitaria, este estudio hace dos contribuciones novedosas. En primer lugar, según el leal saber y entender del investigador, este estudio es el primero en examinar empíricamente el vínculo entre la similitud entre la universidad y el yo, el prestigio universitario, la distinción universitaria

y la responsabilidad social universitaria y el atractivo de la marca universitaria. Al documentar el papel fundamental de estas variables como impulsores cruciales del atractivo de la marca universitaria (ya que estos cuatro constructos explican el 72,7% de la varianza en el atractivo de la marca universitaria) este estudio proporciona información importante sobre las principales fuerzas que subyacen a la identificación con la marca universitaria. En segundo lugar, la revisión exhaustiva de la literatura actual sobre la identificación con la marca universitaria reveló que el estudio de Balmer *et al.* (2020) es el único que identificó el papel mediador del atractivo de la marca universitaria en la relación entre la similitud entre la universidad y el yo y el carácter distintivo de la universidad y la identificación con la marca universitaria. Al documentar el papel mediador del atractivo de la marca universitaria en la relación entre la semejanza entre la universidad y el yo, el prestigio universitario, la distinción universitaria y la responsabilidad social universitaria y la identificación con la marca universitaria, este estudio respalda los hallazgos de Balmer *et al.* (2020) y realiza una contribución novedosa informando sobre el efecto mediador del atractivo de la marca universitaria en las relaciones entre el prestigio universitario y la responsabilidad social universitaria y la identificación con la marca universitaria. Estas relaciones de mediación proporcionan una imagen teórica más matizada de las variables que subyacen a la identificación con la marca universitaria.

4. Este es el primer trabajo que sugiere que la perspectiva de identificación social puede integrarse con una perspectiva de intercambio social para mejorar la lealtad de los estudiantes hacia la universidad. Este estudio demuestra esto al desarrollar y probar un modelo más general que integra la identificación con la marca universitaria con las variables tradicionales de intercambio social (es decir, satisfacción y confianza de los estudiantes) como factores antecedentes de la lealtad de los estudiantes.
5. Este estudio complementa los hallazgos previamente inconsistentes sobre la relación entre la identificación con la marca universitaria y la satisfacción de los estudiantes (Heffernan *et al.*, 2018; Trullas *et al.*, 2018; Wilkins *et al.*, 2016) y entre la identificación con la marca universitaria y la confianza de los estudiantes (Heffernan *et al.*, 2018; Myers *et al.*, 2016; Nevzat *et al.*, 2016).

6. Al confirmar la influencia positiva de la identificación con la marca universitaria en la lealtad de los estudiantes, este estudio ofrece más apoyo al hallazgo anterior que confirmó la influencia significativa de la identificación con la marca universitaria en la lealtad y los comportamientos de apoyo hacia la universidad (Balaji *et al.*, 2016; Fazli -Salehi *et al.*, 2019; Kim *et al.*, 2010; Palmer *et al.*, 2016; Yao *et al.*, 2019).
7. Al documentar el papel fundamental de la satisfacción de los estudiantes en la confianza y la lealtad de los estudiantes, este estudio respalda aún más la noción de que la satisfacción de los estudiantes es un factor crucial para la confianza y la lealtad de los estudiantes (Frasquet *et al.*, 2012; Palacio *et al.*, 2002; Schlesinger *et al.*, 2017).
8. Este estudio es el primero, hasta donde llega el conocimiento del investigador, que examina empíricamente el papel mediador de las variables de intercambio social que se manifiestan en la satisfacción y la confianza de los estudiantes en la relación entre la identificación con la marca universitaria y la lealtad de los estudiantes. Al documentar el efecto mediador de la satisfacción y la confianza de los estudiantes en esta relación, esta investigación es la primera que observa que la identificación con la marca universitaria no solo afecta la lealtad de los estudiantes hacia la universidad, sino que también mejora la percepción de los estudiantes de las relaciones de intercambio social que se manifiestan en la satisfacción y confianza del estudiante. Estos resultados dan una imagen más matizada de los resultados de la identificación con la marca universitaria.
9. Finalmente, al investigar el papel mediador de la identificación con la marca universitaria en el vínculo entre el atractivo de la marca universitaria y la satisfacción de los estudiantes, la confianza de los estudiantes y la lealtad de los estudiantes, este estudio hace dos contribuciones novedosas. Primero, este es el primer trabajo que documenta el papel crucial de predicción del atractivo de la marca universitaria en la identificación con la marca universitaria, la satisfacción de los estudiantes, la confianza de los estudiantes y la lealtad de los estudiantes. Esto sugiere que el atractivo de la marca universitaria es un mecanismo poderoso que tiene una ruta dual para mejorar la relación de los estudiantes con la universidad a través de la perspectiva de identificación social y la perspectiva de intercambio social. En segundo lugar, este también es el primer trabajo que informa

sobre el efecto mediador de la identificación con la marca universitaria en el vínculo entre el atractivo de la marca universitaria y la satisfacción y la lealtad de los estudiantes, lo que proporciona una imagen más clara de los resultados del atractivo de la marca universitaria.

7.2.2 Implicaciones Prácticas

Los resultados del estudio actual proporcionan varias ideas prácticas sobre el sector de la educación superior que se pueden resumir de la siguiente manera.

En primer lugar, el papel fundamental de la identificación con la marca universitaria en la satisfacción y la lealtad de los estudiantes sugiere que los esfuerzos de marketing de las universidades deben buscar mejorar los factores que impulsan a los estudiantes a desarrollar una relación de autoidentificación con sus universidades debido a sus valiosas consecuencias sobre las actitudes y comportamientos de los estudiantes hacia sus universidades manifestada a través de la satisfacción y lealtad de los estudiantes. Entre las estrategias que se aconsejan implementar a las universidades para impulsar a los estudiantes a desarrollar una relación de autoidentificación con sus universidades, se encuentran las siguientes:

- Un esfuerzo más riguroso en la construcción y articulación de una identidad de marca atractiva. Esto es porque los estudiantes tienen una mayor tendencia a identificarse con una universidad si tiene una identidad de marca atractiva para satisfacer sus necesidades clave de autodefinición.
- Las campañas estratégicas de marca y los esfuerzos de comunicación de marketing para mejorar la conciencia de los estudiantes sobre el prestigio, la distinción, los valores y el mensaje central de la universidad. Por ejemplo, la Universidad de Granada, una de las mejores universidades españolas, ha lanzado un sitio web llamado "canal.ugr.es", también tiene una página en varios canales de redes sociales (por ejemplo, Facebook, Youtube, Twitter, Instagram), a través de estos canales se difunde información sobre la universidad y sus características, así como cualquier nueva información relacionada con su posición global. Tales actividades ayudan a los estudiantes a comprender mejor la identidad universitaria, lo que a su vez mejora su

percepción del atractivo de la marca universitaria y los impulsa a desarrollar una relación de autoidentificación con la universidad.

- Diseñar e implementar programas y actividades de responsabilidad social hacia los propios estudiantes y la sociedad. Por ejemplo, la Universidad de Granada creó una unidad denominada "Unidad de Calidad Ambiental", a través de la cual trabaja para mejorar la conciencia de los estudiantes sobre los problemas ambientales mediante actividades de voluntariado y programas de educación ambiental. Estas actividades ayudan a las universidades a posicionarse mejor en la mente de los estudiantes, lo que a su vez contribuye a fortalecer su relación con la universidad.

En segundo lugar, el papel crucial que tiene el atractivo de la marca universitaria y la identificación con la marca universitaria en la generación de satisfacción de los estudiantes sugiere que los especialistas en marketing universitario podrían ir más allá de las estrategias clásicas de satisfacción de los estudiantes, como la calidad del servicio y el apoyo académico de alta calidad, para desarrollar campañas estratégicas de marca para posicionar mejor a la universidad en la mente de los estudiantes y de esta forma lograr un mayor nivel de satisfacción de los estudiantes.

Finalmente, el importante papel que tiene la satisfacción de los estudiantes en la formación de la confianza y la lealtad de los estudiantes hacia la universidad da más apoyo a la noción de que la satisfacción de los estudiantes, es un tema crítico en la agenda de los administradores de las universidades para construir una relación a largo plazo con los estudiantes, alcanzar su apoyo y comportamientos leales hacia la universidad.

7.3 Limitaciones y Direcciones para Futuras Investigaciones

Como ocurre con cualquier estudio de esta naturaleza, este estudio no está exento de limitaciones. Por lo tanto, los resultados de este estudio deben considerarse a la luz de varias limitaciones. Estas limitaciones no deben socavar la importancia de los significativos conocimientos y hallazgos que se ofrecen en esta investigación, pero han de ser considerados para apuntar a varios temas que necesitan más investigación y pueden plantearse como posibles vías para el futuro estudios:

1. En este estudio se utilizó una encuesta transversal, que ayuda a determinar las relaciones direccionales entre las variables, pero restringe la capacidad de afirmar las inferencias causales. Los estudios futuros podrían utilizar un diseño longitudinal para comprender el vínculo causal en las relaciones hipotéticas del estudio y rastrear la identificación de los estudiantes con la universidad y sus actitudes y comportamientos hacia la universidad a lo largo del tiempo.
2. Los hallazgos se basan en datos provenientes de estudiantes españoles, siendo necesario tener en cuenta que España es una sociedad colectivista. La investigación futura podría aplicar este marco en sociedades más individualistas y comparar su aplicabilidad transcultural para mejorar la generalización de los resultados.
3. Dado que no se dispone de un marco de muestreo predeterminado, los datos se recopilaron utilizando una técnica de muestreo no probabilístico. Por lo tanto, se debe tener cuidado con la generalización de los hallazgos de este estudio. La investigación futura podría investigar el modelo de investigación actual con una muestra más representativa para una mayor validación.
4. Dado que la muestra se limita a estudiantes de pregrado de diferentes facultades españolas de economía y negocios, se recomienda evaluar el modelo a través de una muestra de población más variada de estudiantes de diferentes disciplinas académicas (por ejemplo, ciencias, humanidades, deportes) para aumentar la generalización de la modelo de investigación.
5. La varianza explicada en la identificación con la marca universitaria por los antecedentes que se han investigado en este estudio fue del 28,4%. Así, podría ser de interés para futuros estudios estudiar otras variables como posibles antecedentes de identificación con la marca universitaria e identificar un marco más integral de los antecedentes de la identificación con la marca universitaria, que incorpore antecedentes tanto afectivos como cognitivos para proporcionar una comprensión profunda del tema de identificación con la marca universitaria.
6. El estudio actual relaciona la identificación con la marca universitaria con tres consecuencias valiosas: la satisfacción del estudiante, la confianza del estudiante y la lealtad del estudiante; los estudios futuros podrían relacionar la identificación con la marca universitaria con los

comportamientos de los estudiantes, como el rendimiento académico y la participación de los estudiantes.

7. Consideración de variables moderadores de las relaciones propuestas en el modelo de investigación. En este sentido, en el presente trabajo, se ha encontrado apoyo empírico sólo en relación con el efecto moderador de género. Podría ser interesante para futuras investigaciones analizar la influencia del efecto moderador que puede ejercer otras variables propias de los estudiante como son el año académico que cursan los estudiantes, el nivel de pregrado o posgrado de los estudiantes. Además, se recomienda considerar la perspectiva de los estudiantes nacionales versus los internacionales.

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APPENDICES

- Appendix A. Study Questionnaire
- Appendix B. Adequacy of Sample Size
- Appendix C. Assessment of Outliers
- Appendix D. Descriptive Statistics
- Appendix E. Frequency Histograms to Spot Normality
- Appendix F. Discriminant Validity
- Appendix E. Summary of Publications

APPENDIX A: STUDY QUESTIONNAIRE

A: Por favor, valorar de 1 a 7 (siendo "1" totalmente en desacuerdo y "7" totalmente de acuerdo) el grado de acuerdo o desacuerdo con las siguientes afirmaciones:

	Totalmente en desacuerdo						Totalmente de acuerdo
Me gusta lo que representa mi universidad.	①	②	③	④	⑤	⑥	⑦
Creo que mi universidad es una universidad atractiva.	①	②	③	④	⑤	⑥	⑦
Me gusta lo que significa mi universidad.	①	②	③	④	⑤	⑥	⑦
Los valores transmitidos por mi universidad son consistentes con mis valores personales.	①	②	③	④	⑤	⑥	⑦
Los valores transmitidos por mi universidad reflejan el tipo de persona que soy.	①	②	③	④	⑤	⑥	⑦
Los valores transmitidos por mi universidad son compatibles con mi forma de pensar.	①	②	③	④	⑤	⑥	⑦
Los valores transmitidos por mi universidad son similares a mis valores.	①	②	③	④	⑤	⑥	⑦
En general la gente piensa muy bien de mi universidad.	①	②	③	④	⑤	⑥	⑦
Mi universidad mantiene un estándar superior de excelencia académica.	①	②	③	④	⑤	⑥	⑦
Ser un/a estudiante o graduado/a de mi universidad es prestigioso.	①	②	③	④	⑤	⑥	⑦
La gente está orgullosa cuando su hijo/a estudia en mi universidad.	①	②	③	④	⑤	⑥	⑦
Mi universidad tiene una identidad distintiva.	①	②	③	④	⑤	⑥	⑦
Mi universidad destaca frente a otras universidades.	①	②	③	④	⑤	⑥	⑦
Mi universidad es una universidad única.	①	②	③	④	⑤	⑥	⑦
Mi universidad es consciente de las cuestiones medioambientales.	①	②	③	④	⑤	⑥	⑦
Mi universidad cumple con sus responsabilidades sociales.	①	②	③	④	⑤	⑥	⑦
Mi universidad revierte en la sociedad.	①	②	③	④	⑤	⑥	⑦
Mi universidad actúa de forma socialmente responsable.	①	②	③	④	⑤	⑥	⑦
Estoy muy interesado/a en lo que piensan los demás respecto a mi universidad.	①	②	③	④	⑤	⑥	⑦

	Totalmente en desacuerdo					**Totalmente de acuerdo**
Cuando hablo de mi universidad, normalmente digo "Nosotros" en vez de "Ellos".	①	②	③	④	⑤	⑥	⑦
Siento que los éxitos de mi universidad son mis éxitos.	①	②	③	④	⑤	⑥	⑦
Cuando alguien alaba a mi universidad, siento como que me alaba.	①	②	③	④	⑤	⑥	⑦
Cuando alguien critica a mi universidad lo siento como un insulto personal.	①	②	③	④	⑤	⑥	⑦
Cuando alguien critica a mi universidad me siento avergonzado/a.	①	②	③	④	⑤	⑥	⑦
En general estoy muy satisfecho por los servicios prestados por mi universidad.	①	②	③	④	⑤	⑥	⑦
Esta universidad ha alcanzado mis expectativas.	①	②	③	④	⑤	⑥	⑦
Esta universidad me está ayudando a cumplir mis aspiraciones.	①	②	③	④	⑤	⑥	⑦
Esta universidad ha respondido a mis necesidades.	①	②	③	④	⑤	⑥	⑦
Mi decisión de elegir esta universidad fue correcta.	①	②	③	④	⑤	⑥	⑦
Puedo decir que mi universidad da un buen servicio.	①	②	③	④	⑤	⑥	⑦
Esta universidad suele cumplir las promesas que hace.	①	②	③	④	⑤	⑥	⑦
Esta universidad pone en primer lugar los intereses de los estudiantes.	①	②	③	④	⑤	⑥	⑦
Se puede confiar en que mi universidad cumple sus promesas.	①	②	③	④	⑤	⑥	⑦
Si tuviera que volver a adoptar la decisión de elegir una universidad, volvería a elegir está universidad.	①	②	③	④	⑤	⑥	⑦
Si tuviera que elegir cursos avanzados o estudios de posgrado, está universidad sería mi primera opción.	①	②	③	④	⑤	⑥	⑦
Después de graduarme, estaré interesado/a en mantenerme en contacto con mi universidad.	①	②	③	④	⑤	⑥	⑦
Voy a recomendar mi universidad a los demás.	①	②	③	④	⑤	⑥	⑦
Voy a recomendar mi universidad a los que me pidan consejo.	①	②	③	④	⑤	⑥	⑦
Voy a recomendar mi universidad a otros a través de social Media (por ejemplo, Facebook o Twitter).	①	②	③	④	⑤	⑥	⑦

	Totalmente en desacuerdo						Totalmente de acuerdo
Publicaré comentarios positivos sobre mi universidad en mis redes sociales (por ejemplo, Facebook o Twitter).	①	②	③	④	⑤	⑥	⑦

B: Por favor, conteste a las siguientes preguntas a efectos de clasificación:

Género: ☐ Masculino ☐ Femenino	**Nacionalidad:** ☐ español/a ☐ Otra: _______
Edad: ☐ 18-21 años ☐ 22-25 años ☐ 26-30 años ☐ More than 30 años	
Curso académico: ☐ Estudiante de primer año ☐ Estudiante de segundo año ☐ Estudiante de tercer año ☐ Estudiante de cuarto año ☐ Estudiante del programa de intercambio Erasmus ☐ Otro: __________	**Titulación de grado:** ☐ Administración y Dirección de Empresa ☐ Economía ☐ Finanzas y Contabilidad ☐ Marketing e Investigación de Mercado ☐ Turismo ☐ Otro: _______

¡Muchas gracias por su colaboración! Será de gran ayuda para nuestra investigación.

APPENDIX B: Adequacy of Sample Size

Figure B.1 G*Power Analysis – Post-Hoc for-Paper Responses

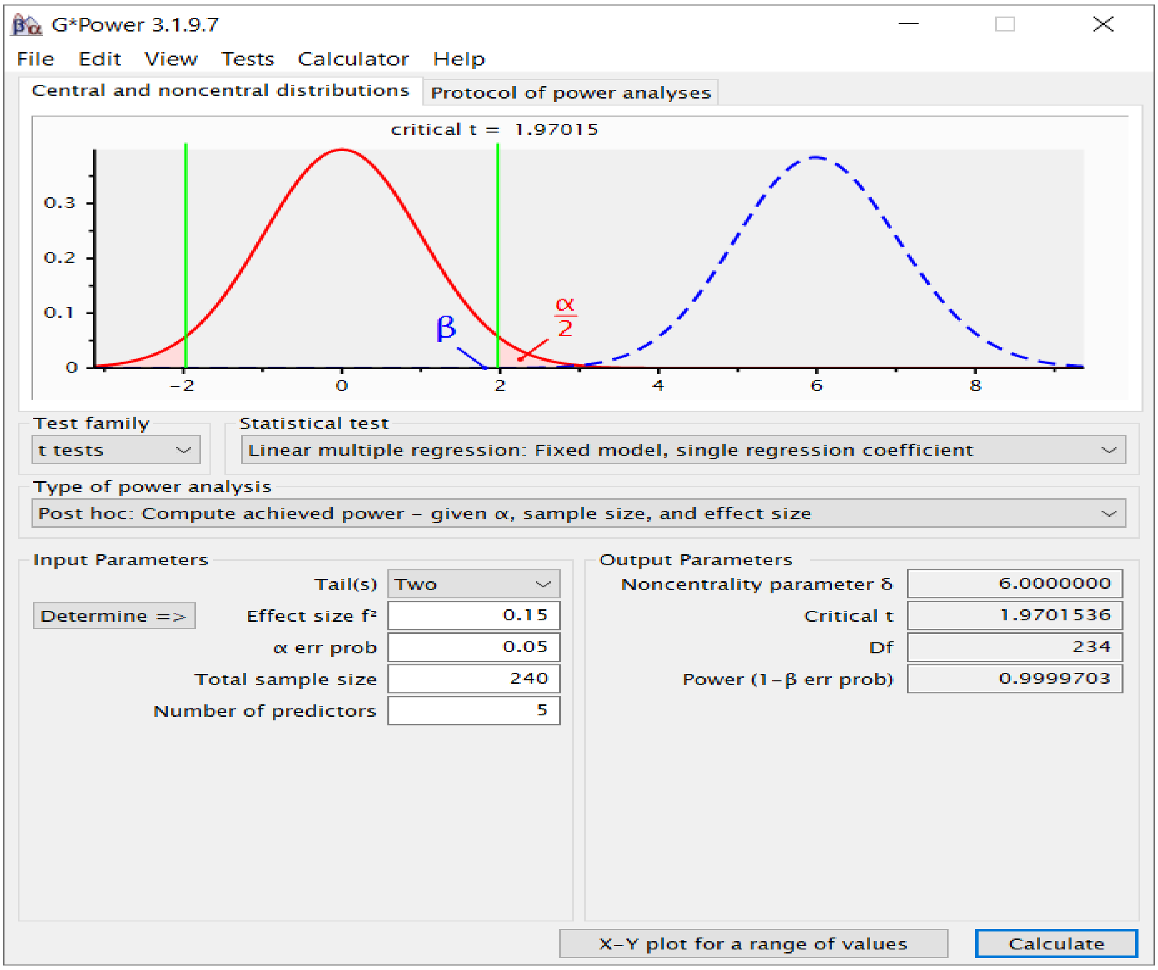
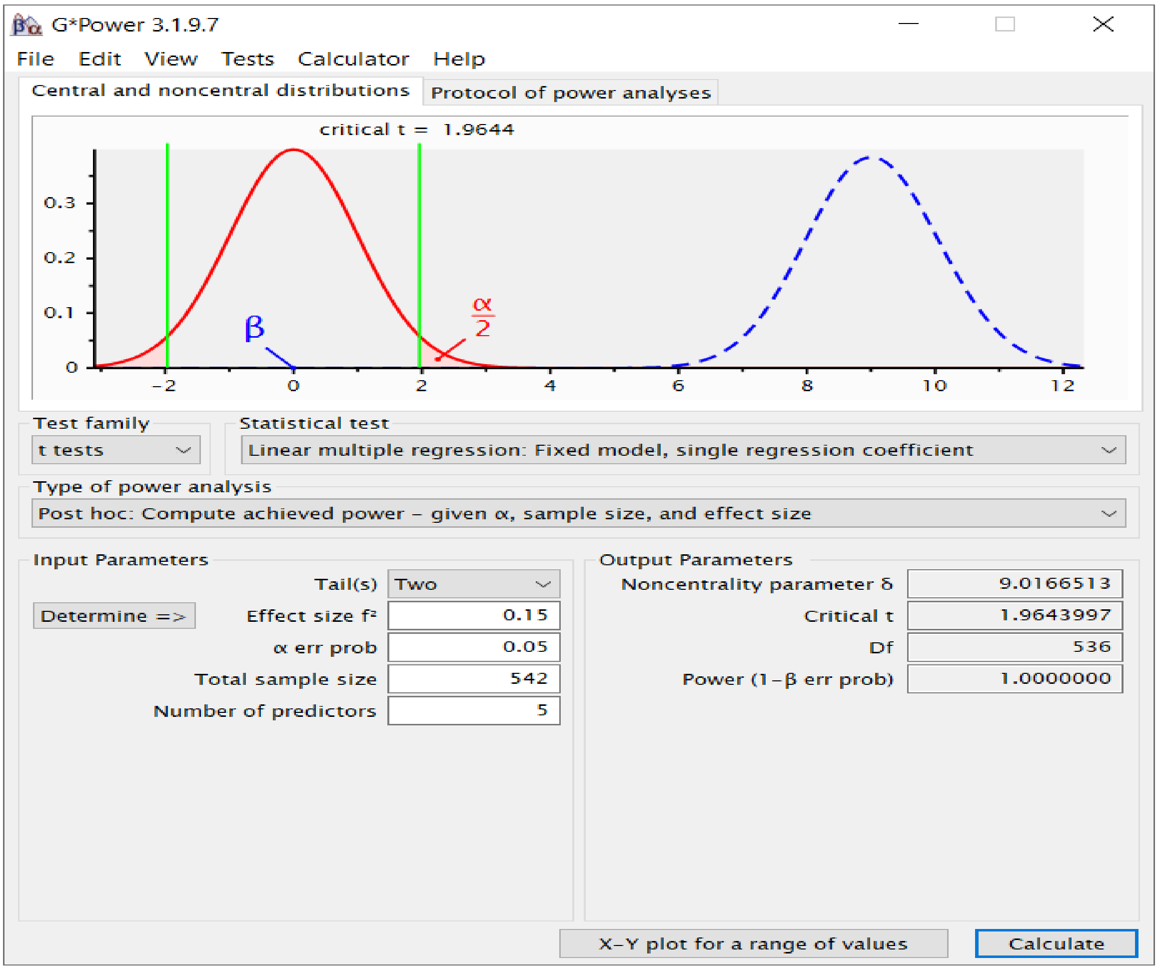


Figure B.2 G*Power Analysis – Post-Hoc for Online Responses



APPENDIX C: Assessment of Outliers

Table C.1 Assessment of Outliers Using Z-Scores for Measured Variables

	Paper responses			*Online responses*		
	N	Minimum	Maximum	N	Minimum	Maximum
Zscore (USS1)	234	-2.341	2.094	541	-2.200	1.818
Zscore (USS2)	234	-2.056	2.285	541	-1.746	1.98
Zscore (USS3)	234	-2.174	2.125	541	-2.122	1.726
Zscore (USS4)	234	-2.031	2.066	541	-2.054	1.866
Zscore (UPR1)	234	-3.173	1.467	541	-2.381	1.905
Zscore (UPR2)	234	-3.061	1.919	541	-2.444	2.182
Zscore (UPR3)	234	-3.128	1.773	541	-2.271	2.135
Zscore (UPR4)	234	-2.151	1.67	541	-2.651	1.826
Zscore (UDI1)	234	-2.778	1.657	541	-1.783	2.22
Zscore (UDI2)	234	-2.925	1.477	541	-1.681	2.098
Zscore (UDI3)	234	-2.258	1.747	541	-1.395	2.287
Zscore (USR1)	234	-2.326	2.052	541	-2.11	1.849
Zscore (USR2)	234	-2.957	2.287	541	-2.499	1.836
Zscore (USR3)	234	-2.676	2.062	541	-2.447	1.812
Zscore (USR4)	234	-2.822	2.057	541	-2.658	1.855
Zscore (UBA1)	234	-2.464	1.654	541	-2.36	1.687
Zscore(UBA2)	234	-2.746	1.447	541	-1.887	1.707
Zscore (UBA3)	234	-2.663	1.679	541	-2.242	1.846
Zscore (UBI1)	234	-1.643	1.754	541	-1.549	1.687
Zscore (UBI2)	234	-1.261	1.706	541	-1.394	1.509
Zscore (UBI3)	234	-1.236	2.307	541	-1.22	2.151
Zscore(UBI4)	234	-1.397	2.022	541	-1.375	1.764
Zscore (UBI5)	234	-1.315	2.094	541	-1.236	1.943
Zscore (UBI6)	234	-1.235	2.212	541	-1.312	1.914
Zscore (SAT1)	234	-2.048	1.907	541	-2.036	1.679
Zscore (SAT2)	234	-1.759	1.815	541	-1.836	1.707

	Paper responses			*Online responses*		
	N	**Minimum**	**Maximum**	**N**	**Minimum**	**Maximum**
Zscore (SAT3)	234	-1.876	1.684	541	-1.966	1.627
Zscore (SAT4)	234	-1.933	2.172	541	-2.006	1.773
Zscore (SAT5)	234	-2.258	1.378	541	-2.077	1.289
Zscore (STU1)	234	-2.293	1.782	541	-2.186	1.623
Zscore (STU2)	234	-2.239	2.091	541	-2.047	1.83
Zscore (STU3)	234	-1.709	2.028	541	-1.557	2.108
Zscore (STU4)	234	-2.074	2.067	541	-1.912	1.948
Zscore (LOY1)	234	-2.145	1.398	541	-1.896	1.284
Zscore (LOY2)	234	-1.608	1.727	541	-1.279	1.594
Zscore (LOY3)	234	-1.641	1.95	541	-1.628	1.636
Zscore (LOY4)	234	-2.195	1.568	541	-1.862	1.504
Zscore (LOY5)	234	-2.089	1.449	541	-1.896	1.455
Zscore (LOY6)	234	-1.416	1.857	541	-1.024	2.266
Zscore (LOY7)	234	-1.167	2.071	541	-1.062	2.255

Figure C.1 Assessment of Outliers Using Boxplots for Paper Cases

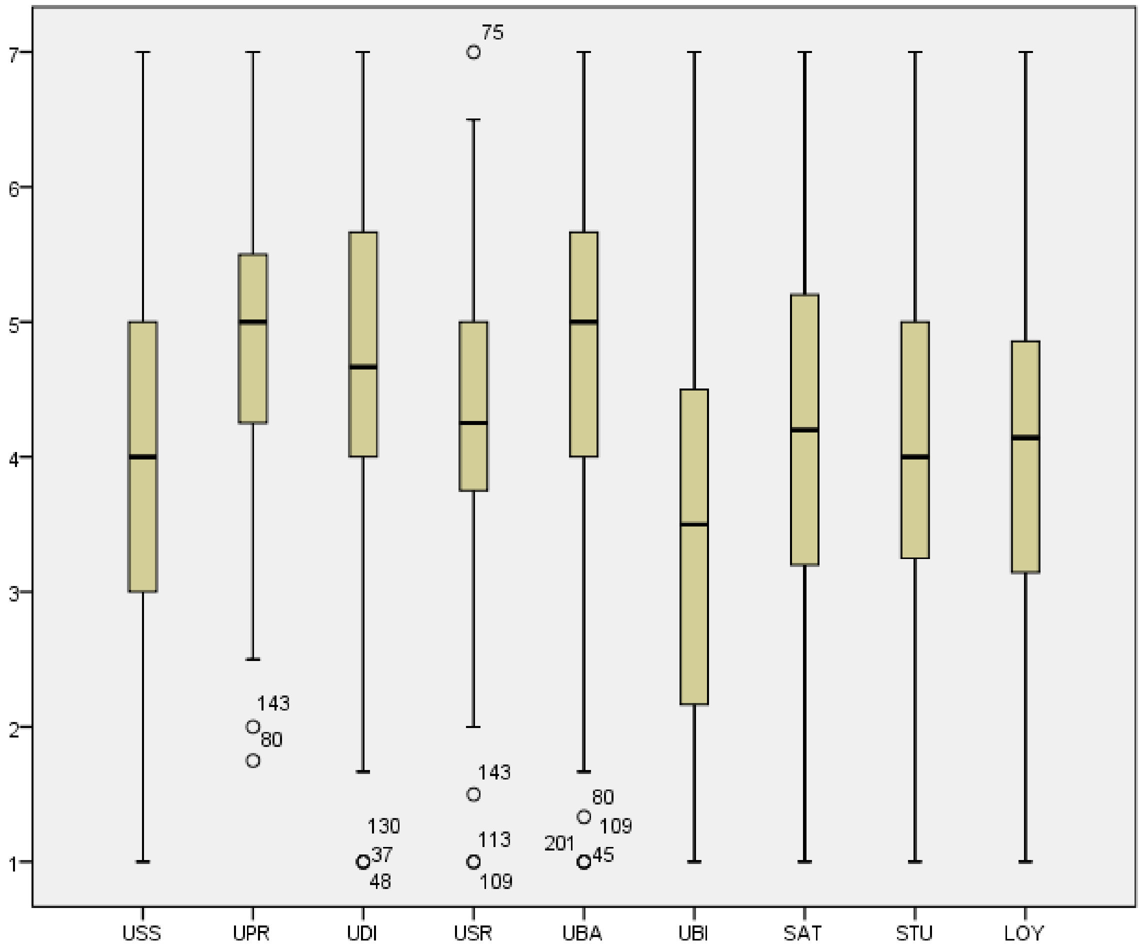
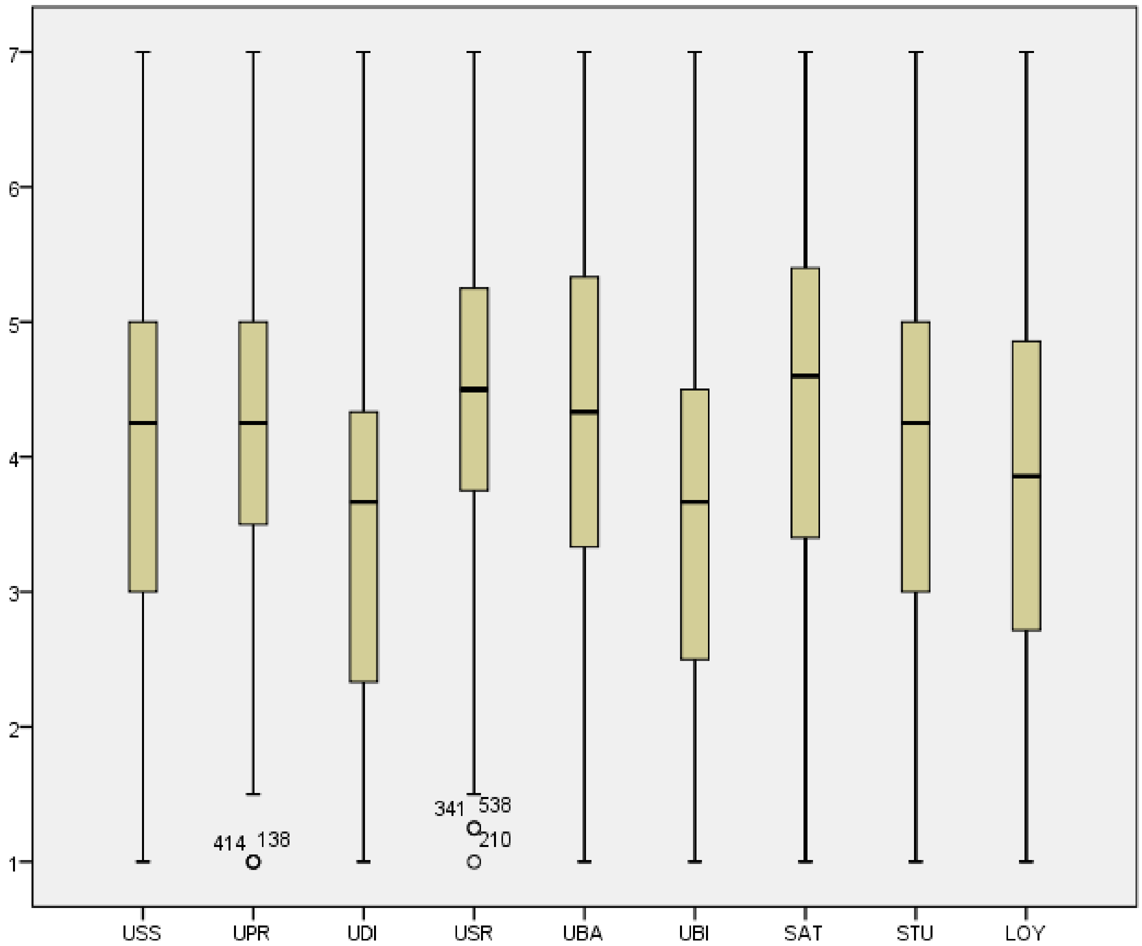


Figure C.2 Assessment of Outliers Using Boxplots for Online Cases



APPENDIX D: Descriptive Statistics

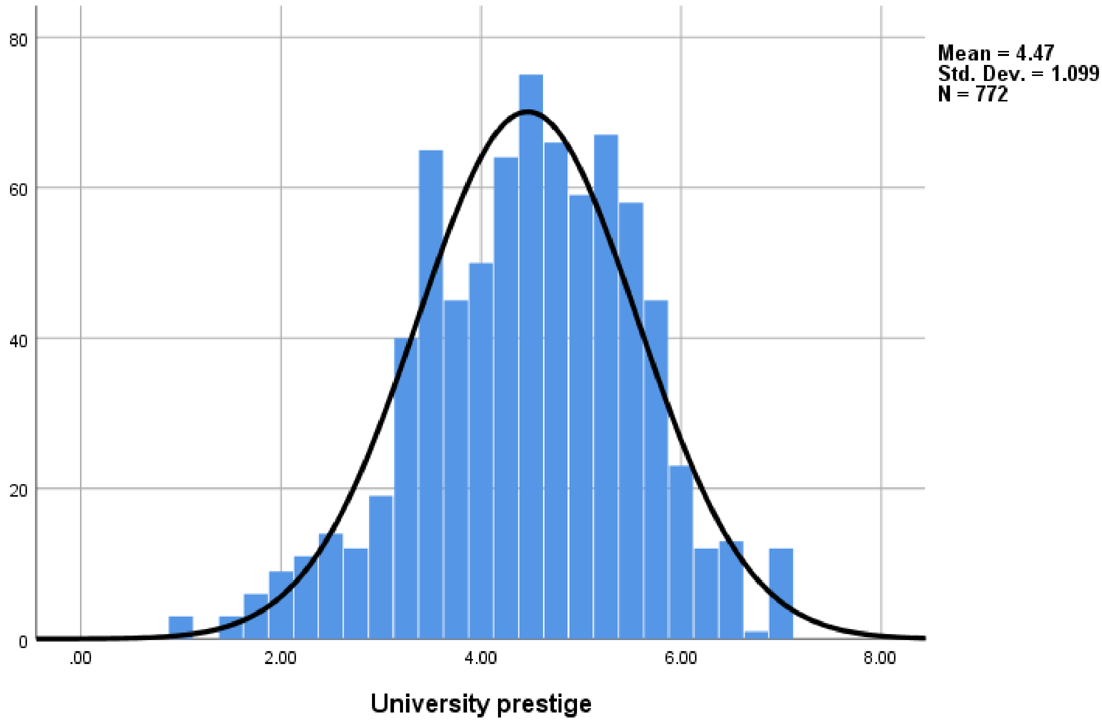
Table D.1 Descriptive Statistics of the Study Variables

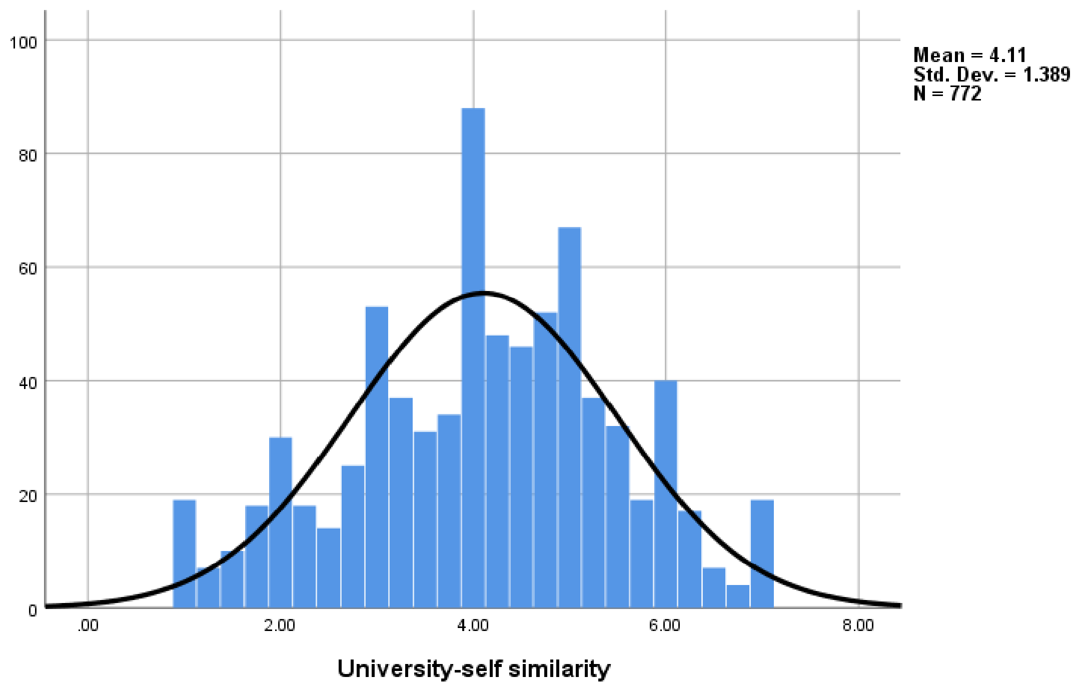
	N	Minimum	Maximum	Mean	SD	CV
USS	-	-	-	4.106	1.389	33.8
USS1	772	1.0	7.0	4.259	1.446	34.0
USS2	772	1.0	7.0	3.829	1.541	40.2
USS3	772	1.0	7.0	4.234	1.512	35.7
USS4	772	1.0	7.0	4.102	1.507	36.7
UPR	-	-	-	4.466	1.099	24.6
UPR1	772	1.0	7.0	4.574	1.404	30.7
UPR2	772	1.0	7.0	4.332	1.287	29.7
UPR3	772	1.0	7.0	4.320	1.363	31.6
UPR4	772	1.0	7.0	4.639	1.331	28.7
UDI	-	-	-	3.897	1.418	36.4
UDI1	772	1.0	7.0	4.006	1.536	38.3
UDI2	772	1.0	7.0	4.074	1.634	40.1
UDI3	772	1.0	7.0	3.612	1.668	46.2
USR	772	-	-	4.404	1.164	26.4
USR1	772	1.0	7.0	4.203	1.466	34.9
USR2	772	1.0	7.0	4.444	1.31	29.5
USR3	772	1.0	7.0	4.442	1.355	30.5
USR4	772	1.0	7.0	4.526	1.29	28.5
UBA	-	-	-	4.452	1.375	30.9
UBA1	772	1.0	7.0	4.538	1.466	32.3
UBA2	772	1.0	7.0	4.396	1.634	37.2
UBA3	772	1.0	7.0	4.421	1.44	32.6
UBI	-	-	-	3.516	1.436	40.8
UBI1	772	1.0	7.0	3.883	1.823	46.9
UBI2	772	1.0	7.0	3.791	2.056	54.2
UBI3	772	1.0	7.0	3.156	1.752	55.5

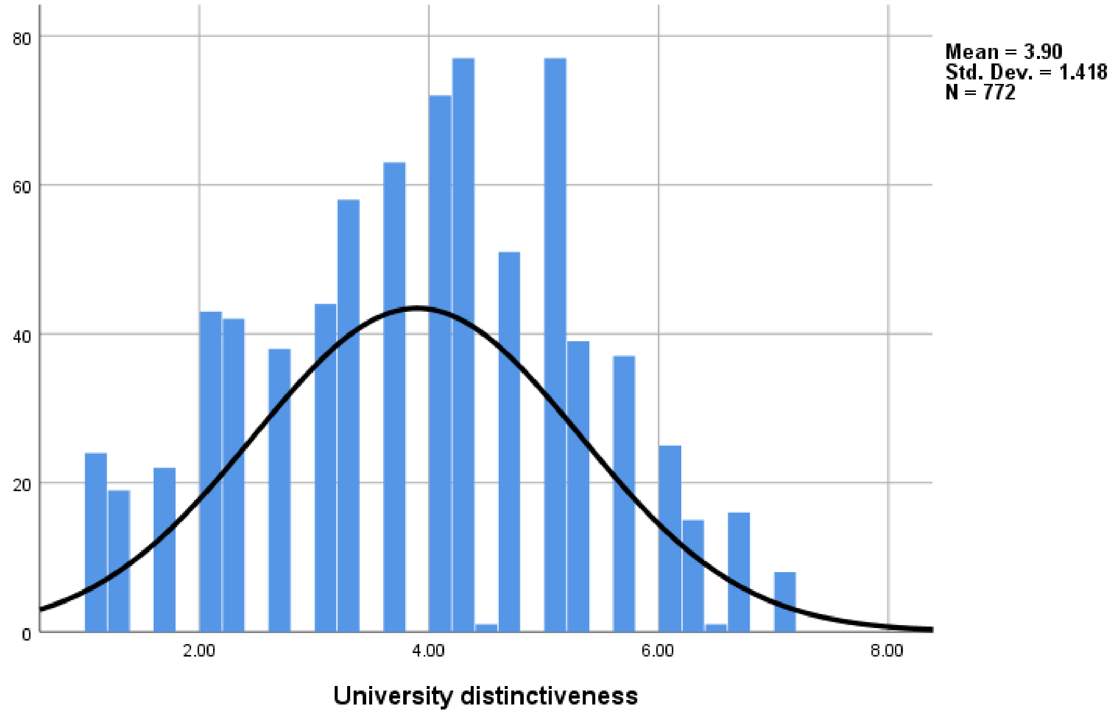
	N	Minimum	Maximum	Mean	SD	CV
UBI4	772	1.0	7.0	3.583	1.865	52.1
UBI5	772	1.0	7.0	3.333	1.85	55.5
UBI6	772	1.0	7.0	3.351	1.825	54.5
SAT	-	-	-	4.275	1.451	33.9
SAT1	772	1.0	7.0	4.244	1.582	37.3
SAT2	772	1.0	7.0	4.073	1.684	41.3
SAT3	772	1.0	7.0	4.256	1.67	39.2
SAT4	772	1.0	7.0	4.085	1.554	38.0
SAT5	772	1.0	7.0	4.716	1.737	36.8
STU	-	-	-	4.052	1.382	34.1
STU1	772	1.0	7.0	4.435	1.535	34.6
STU2	772	1.0	7.0	4.161	1.49	35.8
STU3	772	1.0	7.0	3.617	1.626	45.0
STU4	772	1.0	7.0	3.994	1.514	37.9
LOY	-	-	-	3.886	1.471	37.9
LOY1	772	1.0	7.0	4.602	1.828	39.7
LOY2	772	1.0	7.0	3.747	2.005	53.5
LOY3	772	1.0	7.0	3.923	1.792	45.7
LOY4	772	1.0	7.0	4.386	1.722	39.3
LOY5	772	1.0	7.0	4.452	1.755	39.4
LOY6	772	1.0	7.0	3.094	1.856	60.0
LOY7	772	1.0	7.0	3.000	1.825	60.8

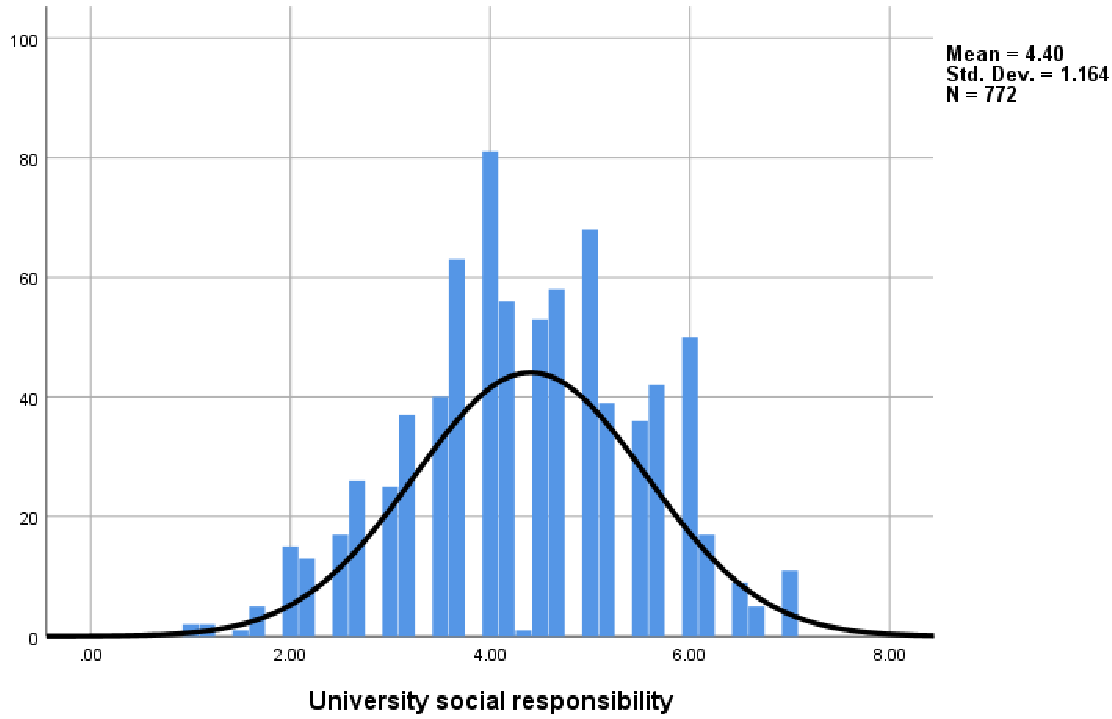
Notes: SD= standard deviation, CV= coefficient of variation “a statistical measure of the dispersion of data points in a data series around the mean”

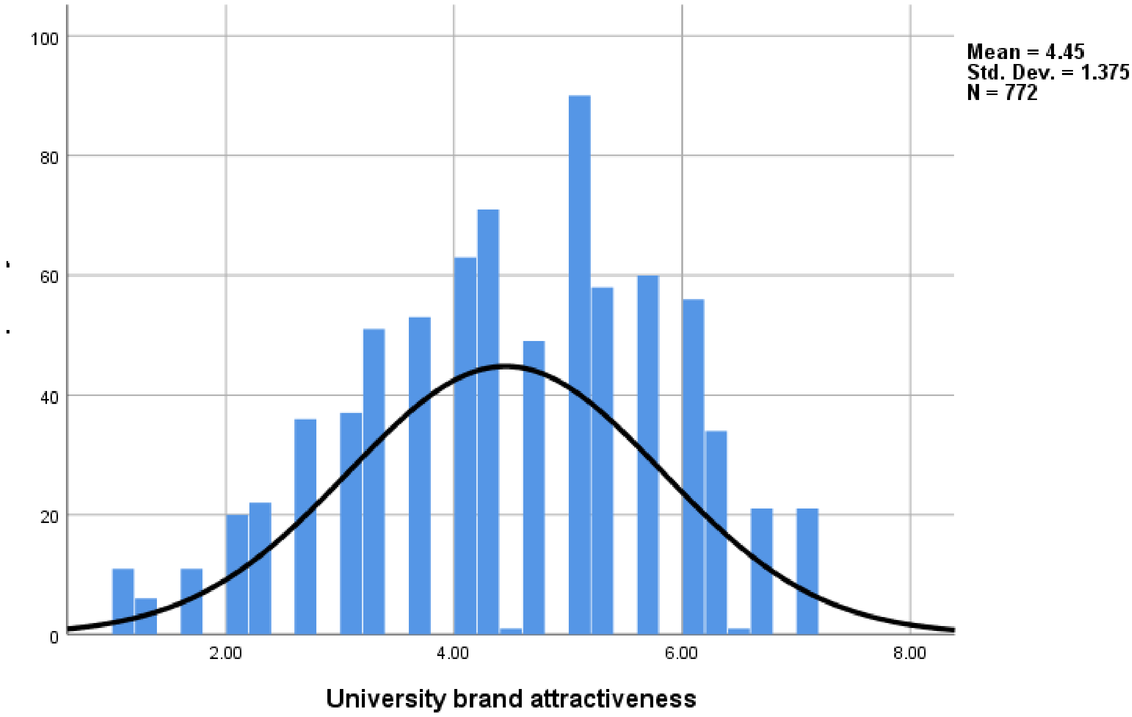
APPENDIX E: Frequency Histograms Graphs to Spot Normality

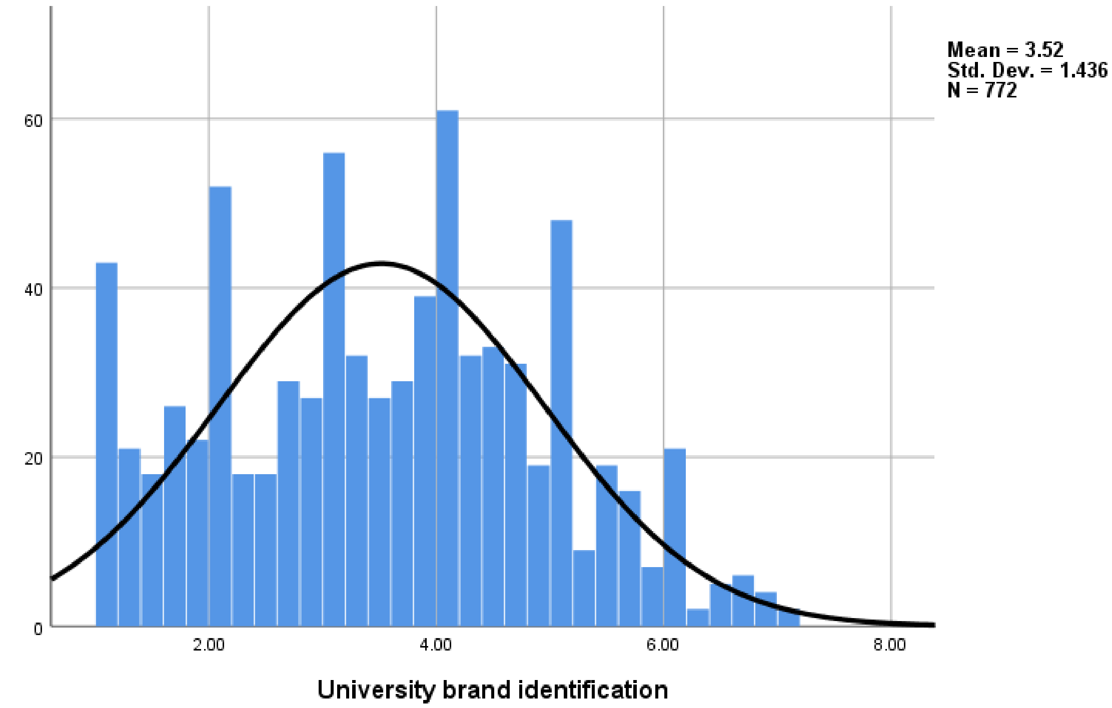


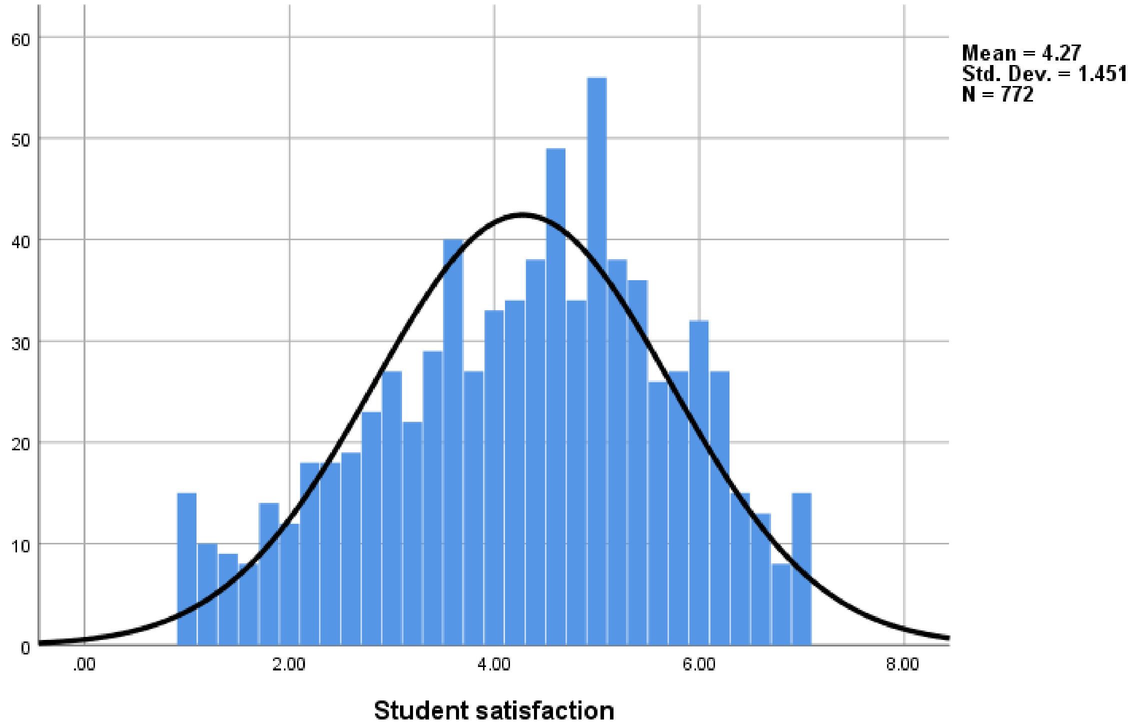



Mean = 3.90
Std. Dev. = 1.418
N = 772
University distinctiveness

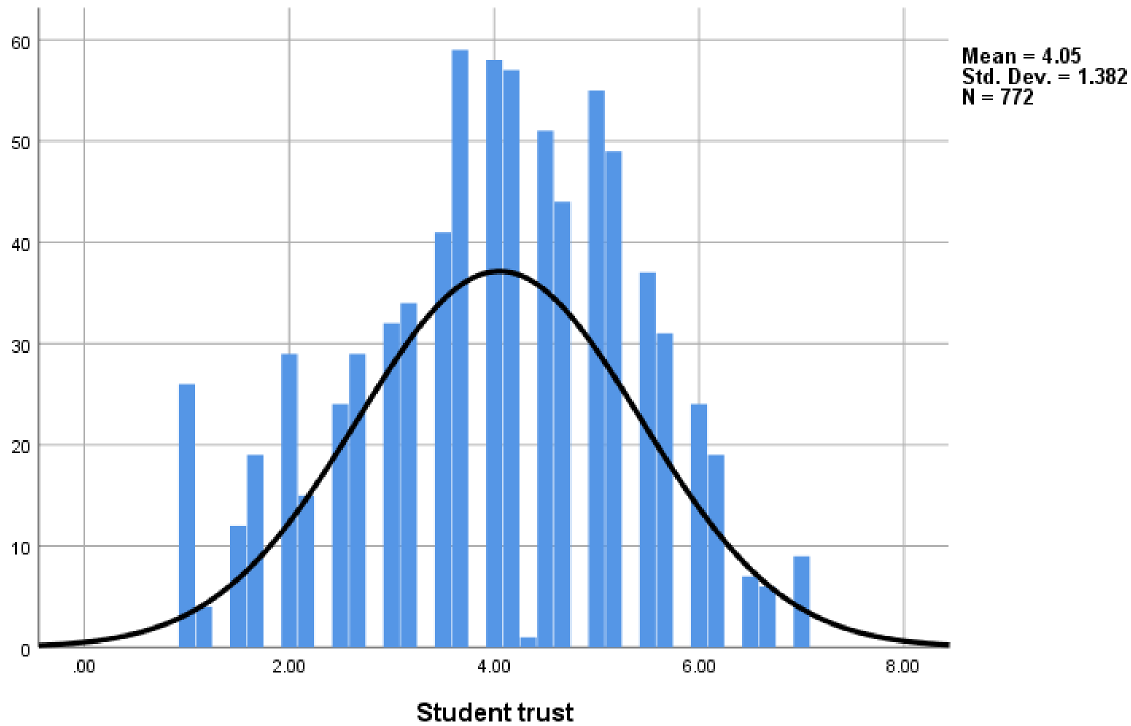

Mean = 4.40
Std. Dev. = 1.164
N = 772
University social responsibility


100
80
60
40
20
0
2.00
4.00
6.00
8.00
University brand attractiveness
Mean = 4.45
Std. Dev. = 1.375
N = 772

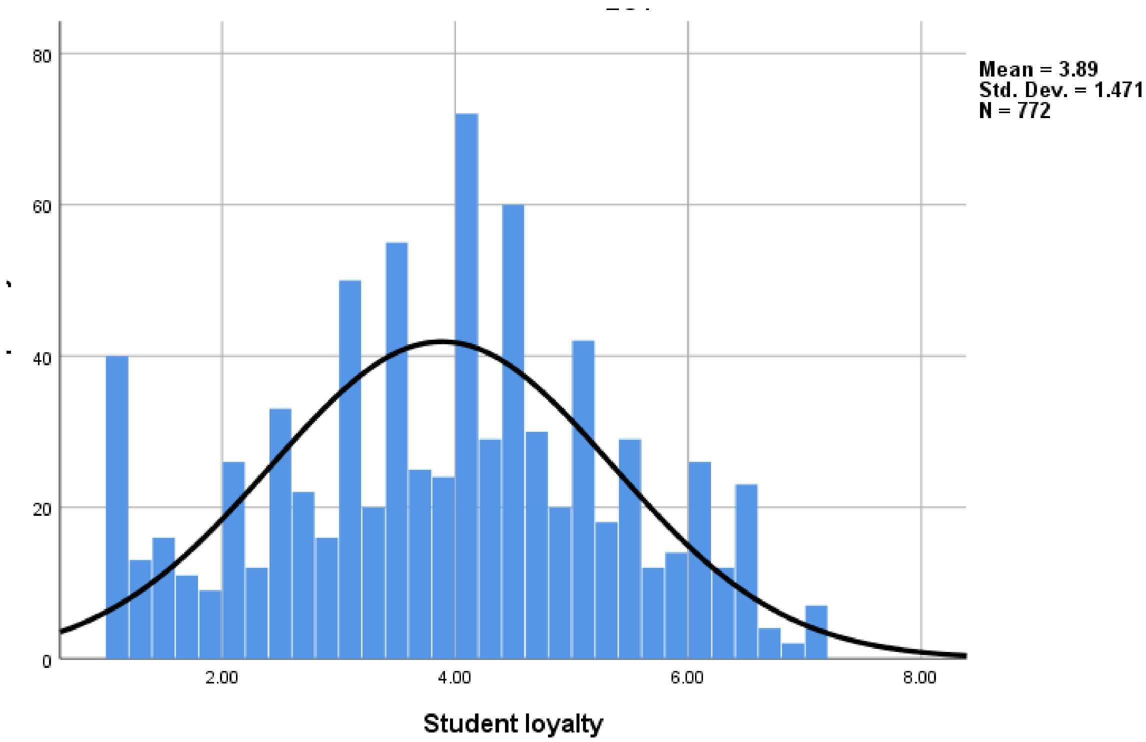

60
40
20
0
2.00
4.00
6.00
8.00
University brand identification
Mean = 3.52
Std. Dev. = 1.436
N = 772



60
50
40
30
20
10
0
.00
2.00
4.00
6.00
8.00
Mean = 4.27
Std. Dev. = 1.451
N = 772
Student satisfaction



60
50
40
30
20
10
0
.00
2.00
4.00
6.00
8.00
Mean = 4.05
Std. Dev. = 1.382
N = 772
Student trust


Mean = 3.89
Std. Dev. = 1.471
N = 772
80
60
40
20
0
2.00
4.00
6.00
8.00
Student loyalty

APPENDIX F: Discriminant Validity

Table F.1 Discriminant Validity Cross Loadings Matrix

	LOY	SAT	STU	UBA	UBI	UDI	UPR	USR	USS
LOY1	**0.808**	0.727	0.575	0.618	0.417	0.439	0.551	0.462	0.500
LOY2	**0.780**	0.572	0.524	0.533	0.408	0.446	0.516	0.379	0.420
LOY3	**0.766**	0.601	0.497	0.510	0.507	0.403	0.448	0.433	0.436
LOY4	**0.908**	0.762	0.650	0.709	0.570	0.496	0.620	0.517	0.536
LOY5	**0.905**	0.762	0.648	0.696	0.557	0.497	0.618	0.517	0.531
LOY6	**0.752**	0.476	0.443	0.482	0.516	0.444	0.447	0.340	0.385
LOY7	**0.720**	0.474	0.425	0.457	0.531	0.392	0.394	0.340	0.390
SAT1	0.690	**0.890**	0.734	0.670	0.512	0.429	0.547	0.564	0.584
SAT2	0.711	**0.915**	0.681	0.682	0.518	0.448	0.556	0.540	0.593
SAT3	0.672	**0.883**	0.612	0.611	0.513	0.385	0.467	0.517	0.573
SAT4	0.666	**0.887**	0.688	0.637	0.531	0.412	0.499	0.571	0.593
SAT5	0.732	**0.838**	0.605	0.669	0.459	0.451	0.579	0.501	0.536
STU1	0.638	0.721	**0.852**	0.692	0.431	0.467	0.596	0.620	0.585
STU2	0.602	0.662	**0.919**	0.616	0.438	0.421	0.529	0.613	0.550
STU3	0.600	0.669	**0.895**	0.610	0.443	0.430	0.523	0.590	0.566
STU4	0.573	0.646	**0.922**	0.614	0.429	0.439	0.523	0.621	0.563
UBA1	0.643	0.700	0.671	**0.906**	0.463	0.498	0.624	0.608	0.773
UBA2	0.638	0.616	0.603	**0.889**	0.398	0.647	0.689	0.479	0.535
UBA3	0.678	0.702	0.654	**0.933**	0.489	0.634	0.684	0.591	0.669
UBI1	0.356	0.331	0.258	0.306	**0.644**	0.291	0.259	0.265	0.307
UBI2	0.460	0.456	0.380	0.351	**0.717**	0.237	0.263	0.317	0.322
UBI3	0.563	0.547	0.463	0.458	**0.871**	0.343	0.380	0.415	0.443
UBI4	0.558	0.508	0.450	0.460	**0.882**	0.334	0.403	0.394	0.412
UBI5	0.544	0.479	0.413	0.440	**0.840**	0.321	0.357	0.352	0.359
UBI6	0.310	0.260	0.200	0.210	**0.660**	0.115	0.134	0.181	0.217

	LOY	SAT	STU	UBA	UBI	UDI	UPR	USR	USS
UDI1	0.496	0.453	0.446	0.623	0.349	**0.894**	0.616	0.434	0.433
UDI2	0.513	0.432	0.426	0.595	0.313	**0.902**	0.677	0.407	0.365
UDI3	0.441	0.381	0.423	0.486	0.306	**0.840**	0.513	0.420	0.323
UPR1	0.551	0.536	0.544	0.648	0.319	0.541	**0.833**	0.407	0.477
UPR2	0.569	0.552	0.591	0.626	0.380	0.578	**0.851**	0.445	0.497
UPR3	0.511	0.455	0.458	0.592	0.355	0.629	**0.852**	0.356	0.423
UPR4	0.464	0.409	0.368	0.515	0.263	0.498	**0.726**	0.356	0.390
USR1	0.362	0.393	0.447	0.435	0.321	0.401	0.318	**0.784**	0.420
USR2	0.461	0.544	0.601	0.539	0.347	0.387	0.421	**0.892**	0.535
USR3	0.501	0.565	0.616	0.562	0.398	0.440	0.451	**0.870**	0.556
USR4	0.505	0.579	0.660	0.574	0.404	0.418	0.447	**0.892**	0.559
USS1	0.530	0.600	0.600	0.663	0.413	0.394	0.523	0.583	**0.912**
USS2	0.551	0.607	0.571	0.669	0.465	0.433	0.535	0.544	**0.922**
USS3	0.512	0.602	0.566	0.662	0.393	0.360	0.463	0.541	**0.924**
USS4	0.519	0.607	0.602	0.699	0.414	0.397	0.510	0.573	**0.943**

Table F.2 Discriminant Validity Heterotrait-Monotrait Ratio (HTMT) Confidence Intervals Bias Corrected

	Original Sample (O)	Sample Mean (M)	Bias	Confidence Intervals Bias Corrected	
				2.5%	97.5%
SAT → LOY	0.842	0.842	0.000	0.811	0.871
STU → LOY	0.727	0.726	0.000	0.681	0.768
STU → SAT	0.812	0.812	0.000	0.780	0.843
UBA → LOY	0.785	0.785	0.000	0.745	0.821
UBA → SAT	0.811	0.811	0.000	0.774	0.844
UBA → STU	0.777	0.777	0.000	0.735	0.814
UBI → LOY	0.682	0.682	0.000	0.630	0.730
UBI → SAT	0.621	0.621	-0.001	0.565	0.672
UBI → STU	0.523	0.523	-0.001	0.460	0.584
UBI → UBA	0.544	0.544	0.000	0.476	0.603
UDI → LOY	0.624	0.624	0.000	0.568	0.677
UDI → SAT	0.539	0.538	0.000	0.471	0.601
UDI → STU	0.553	0.553	0.000	0.483	0.617
UDI → UBA	0.741	0.741	0.000	0.695	0.783
UDI → UBI	0.412	0.412	0.000	0.337	0.482
UPR → LOY	0.730	0.729	0.000	0.677	0.776
UPR → SAT	0.679	0.679	0.000	0.619	0.734
UPR → STU	0.685	0.685	0.000	0.631	0.735
UPR → UBA	0.846	0.846	0.000	0.806	0.882
UPR → UBI	0.454	0.455	0.001	0.384	0.523
UPR → UDI	0.812	0.812	0.000	0.772	0.847
USR → LOY	0.585	0.584	-0.001	0.524	0.641
USR → SAT	0.667	0.667	0.000	0.615	0.714
USR → STU	0.749	0.748	0.000	0.703	0.788

	Original Sample (O)	Sample Mean (M)	Bias	Confidence Intervals Bias Corrected	
				2.5%	97.5%
USR → UBA	0.687	0.688	0.000	0.633	0.733
USR → UBI	0.473	0.473	0.000	0.403	0.537
USR → UDI	0.552	0.552	0.000	0.480	0.617
USR → UPR	0.554	0.554	0.000	0.481	0.620
USS → LOY	0.611	0.610	0.000	0.550	0.665
USS → SAT	0.697	0.697	0.000	0.648	0.744
USS → STU	0.677	0.678	0.000	0.626	0.723
USS → UBA	0.788	0.789	0.000	0.748	0.825
USS → UBI	0.491	0.491	0.000	0.425	0.556
USS → UDI	0.473	0.473	0.000	0.404	0.535
USS → UPR	0.617	0.618	0.001	0.552	0.674
USS → USR	0.659	0.659	0.000	0.609	0.703

APPENDIX E: Summary of Publications

Journal Publications

Abdelmaaboud, A.K., Polo-Peña, A.I. and Mahrous, A.A. (2020), "The influence of student-university identification on student's advocacy intentions: the role of student satisfaction and student trust", *Journal of Marketing for Higher Education*, in press. available at http://dx.doi.org/10.1080/08841241.2020.1768613. JCR (referred to 2019): Q1/2.375.

JOURNAL OF MARKETING FOR HIGHER EDUCATION
https://doi.org/10.1080/08841241.2020.1768613

The influence of student-university identification on student's advocacy intentions: the role of student satisfaction and student trust

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ABSTRACT

This study examines the influence of student-university identification on student's advocacy intentions directly and indirectly through student satisfaction and student trust and investigates the moderating role of students' gender. Drawing upon a sample of ($n = 741$) undergraduate students from different Spanish universities and using structural equation modeling, the results showed that student-university identification, student satisfaction, and student trust are key influential factors in determining student's advocacy intentions. The results also confirm the presence of the significant indirect effect of student-university identification on student's advocacy intentions via student satisfaction and student trust. The results of multigroup analysis supported the significance of the difference between male and female students in the influence of student-university identification and student satisfaction on student's advocacy intentions.

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KEYWORDS
Higher education institutions; student-university identification; student satisfaction; student trust; student's advocacy intentions

Introduction

In today's world marketplace, there is intensiveness in the challenges facing higher education institutions such as increasing competition due to globalization, decreasing financial support from governments, declining in university-going population, etc. Accordingly, higher education institutions are increasingly adopting marketing and branding strategies that have been proved effectivity in the business domain to overcome that challenges and enhance their competitiveness (Balaji et al., 2016; Palmer et al., 2016; Trullas et al., 2018; Yao et al., 2019). Building a committed and enduring relationship with stakeholders has become a fundamental and strategic goal for universities to survive and maintain their competitiveness (Schlesinger et al., 2017; Sung & Yang, 2009). Undoubtedly that current students are the main stakeholders in the university setting, also they represent the future alumni that the university in indispensable need for their supportive behaviors and solidarity especially in the current increasingly challenging marketplace (Kim et al., 2010; Parahoo et al., 2013).

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Conference Proceedings

Abdelmaaboud, A.K., Peña, A.I.P., Mahrous, A.A. and Kortam, W. (2019), "Antecedents of university students' advocacy intention: the moderating effect of the gender", *XXXI Congreso De Marketing La Asociación Española de Marketing Académico y Profesional (AEMARK),* Cáceres, 11-13 September 2019.

ANTECEDENTS OF UNIVERSITY STUDENTS' ADVOCACY INTENTION: THE MODERATING EFFECT OF THE GENDER

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RESUMEN

Este trabajo propone tres variables de marca que pueden aumentar las intenciones de defensa de los estudiantes. Se examina el efecto de la identificación de la marca universitaria, el prestigio percibido de la marca universitaria y los beneficios sociales de la marca universitaria en la intención de promoción de la universidad. Además, investiga el papel moderador del género de los estudiantes en esas relaciones. Los resultados del modelo de ecuaciones estructurales mostraron que la identificación de la marca universitaria, el prestigio percibido de la marca universitaria y los beneficios sociales de la marca universitaria son factores clave influyentes para determinar las intenciones de promoción de la universidad. Los resultados del análisis multigrupo indicaron que los dos géneros alcanzan diferencias en las variables que influyen en sus intenciones de promoción de la universidad. Para las alumnas las tres variables antecedentes fueron significativas, mientras que para los alumnos, solo el prestigio percibido fue significativo.

Palabras clave:

Instituciones de educación superior, marca de universidad, intenciones de promoción, identificación de marca, prestigio de marca, beneficios sociales de la marca.

ABSTRACT

This work proposes three brand variables which can increase the students' advocacy intentions. It is examined the effect of university brand identification, perceived university brand prestige, and university brand social benefits on students' advocacy intentions. As well, investigates the moderating role of students' gender in those relationships. The data was collected from 326 undergraduate students at a Spanish public university. The results of the structural equation modeling showed that university brand identification, perceived university brand prestige, and university brand social benefits are key influential factors in determining students' advocacy intentions. The results of the multigroup analysis showed that the two genders displayed a difference in the factors influencing their advocacy intentions. For female students, the three antecedents were significant, while for male students, only perceived university brand prestige was significant. Various theoretical and managerial implications are discussed.

Keywords:

Higher education institutions, University branding, Students' advocacy intentions, University brand identification, University brand prestige, University brand social benefits.