# The Impact of Culture on Own-Label Brands Performance

## by

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## **Abstract**

The performance of own-label brands varies enormously across countries, with high penetration in Western countries but limited success in Eastern countries. The common explanations for this state are related to market factors such as the development of big retailer chains or the power balance between retailers and manufacturers. However, the role of culture has been overlooked to explain this situation. This study aims to provide insights into the impact of culture on own-label brands' performance.

This thesis formulates and tests a conceptual framework linking Hofstede's (1980, 2001) five cultural dimensions (power distance, individualism, masculinity, uncertainty avoidance & long-term orientation) to retail market development (size of the retail market) and own-label brands' performance, controlling for three socio-economic variables: GDP per capita, Gini index and Government expenditure. Relevant literature is reviewed in order to develop hypotheses. The conceptual model is then tested upon a sample of 65 countries, utilising data collected via secondary sources and the application of structural equation modelling techniques.

The results of this study indicate that three out of five Hofstede's cultural dimensions, power distance, individualism and uncertainty avoidance, have a significant impact on retail market development, which in turn, significantly influences own-label brands' performance. Moreover, results show that individualism and long-term orientation have a significant direct impact on own-label brands' performance.

Past studies on this domain are restricted to one or two cultural dimensions and generally involve a limited number of countries. This research therefore pioneers in investigating the

five national cultural dimensions across a high number of nations. The findings are important for retailers and may help them to adapt their own-label strategy according to the culture of the nation they are operating in.

**Key Words:** Culture, Own-Label Brands Performance, Retail Market Development, Socio-Economic Factors, Structural Equation Modelling.

# Dedication

To

My parent, Shambhu Raj Budhathoki and Prem Kumari Budhathoki

For their strength and faith in me

**And**

To

My wife, Manisha Karki Budhathoki and son, Ian Budhathoki

For their love and understanding

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# Chapter 1

# Introduction

## 1.1 Research Background

Own-label brands, also called house brands, store brands or private label brands refer to *"merchandise that carry wholesaler's or retailer's own brand name or a brand name created exclusively for that particular wholesaler or retailer"* (Harcar *et al.,* 2006, p.55). Own-label brands have long been considered an important aspect of merchandising practice, both as a strategic tool for retailers and as a unique source of competition for manufacturers. One of the most commonly implemented marketing strategies of retailers like Tesco or Wal-Mart has been the introduction of their own-label brands. For example, the *Healthy Living* range is an own-label brand exclusively offered by Tesco.

In the late 1990s, every major grocery retailer in the western countries had developed credible own-label brands (Geyskens *et al.,* 2010); however, the development of own-label brands was much lower in eastern countries (Song 2012). In other words, whilst western European countries have a long history of own-label development and highly sophisticated own-label brands markets, Asian markets are relatively underdeveloped in terms of own-label brand penetration (see Lin *et al.,* 2009). Nielsen (2011) reported that in developed markets, own-label brands occupy a noticeable level of market share; Switzerland 46%, UK 43%, US 17%, Australia 14%, whereas in Asia it is significantly lower, with Hong Kong and Singapore taking the lead with 5% and 3% respectively. This shows the considerable difference across countries regarding the adoption rate by consumers of own-label brands.

Past studies have already investigated the disparity between countries regarding own-label brand performance from two main perspectives: the consumer perspective (e.g., Veloutsou *et al.,* 2004; Lin *et al.,* 2009) and the retail market development perspective (e.g., Ferine and Pierrel 1996; Lamey *et al.,* 2007).

The first type, consumer perspective, investigates consumers' attitudes, perceptions and choice behaviour regarding own-label brands. Past research on consumer perspective of own-label brands shows that American and Chinese consumers had significant differences when addressing beliefs and perceptions concerning own-label brands (Lupton *et al.,* 2009). Lee and Hyman (2008) find that Korean consumers' attitudes towards own-label brands may be more critical than Western consumers' attitudes. Lin *et al.,* (2009) concludes that unlike Western European consumers, Taiwanese consumers have limited purchase experience, and perceive a potential risk in buying own-label brands. Similarly, Veloutsou *et al.,* (2004) finds that Greek consumers are less familiar with own-label products and assess them differently than Scottish consumers.

The second perspective focuses on the role of the retail market development defined as "*the structural and functional characteristics of the system of retail institutions operating within a market*" (Hirschman 1978, p.29). Several studies have been conducted in order to understand the impact retail market development may have on own-label brands performance. Different variables related to retail market development have been studied, such as concentration (Connor and Peterson 1992; Oubina *et al.,* 2007; Singh and Zhu, 2008), market share and pricing setting behaviour (Cotterill and Putsis, 2000; Cotterill *et al.,* 2000), brand market share (Raju *et al.,* 1995; Rubio and Yague, 2009), distribution channel (Ferine and Pierrel,

1996), or the competition structure representing the number and the size of different competitors (Dhar and Hoch, 1997; Cuneo *et al.,* 2015).

However, amongst past studies on own-label brands performance, few have investigated the role of culture. It is, however, very important to take culture into account. Richardson *et al.,* (1996, p.181) call, for the first time, for a greater investigation of the role of culture in own-label brands consumption, saying that prior research "*has ignored cultural differences which might partially account for the greater success of private label products in Europe*".

Recently, a handful of studies have attempted to study the role of culture on own-label brand performance. For example, a cross-cultural study by Shannon and Mandhachitara (2005), who examined Eastern and Western consumers' shopping attitudes and behaviour towards own-label grocery brands. A similar research trend was followed by several other scholars (see e.g., Herstein *et al.,* 2012; Tifferet and Herstein 2010; Song 2012) in order to understand the role of culture on own-label versus national brands.

However, these investigations remain partial. As far as the author's knowledge is concerned, all these studies only tested one or two cultural dimensions to understand the impact of culture on own-label brands performance, whilst recent studies highlight the importance of testing Hofstede's five cultural dimensions (Kirkman *et al.,* 2006; Triandis, 2004). In addition, these studies generally only employ two-country comparisons, which could be considered to be a major methodological concern (Cadogan, 2010; Franke and Richey, 2010). Comparing two countries does not isolate different national cultural forces, for example, macroeconomic development stage or the system of law (Engelen and Brettel, 2011). In addition, the data from just two countries "*cannot provide strong support for the implicit*

*hypothesis, and so implicit or explicit generalizations are not appropriate"* (Cadogan, 2010, p.603). Finally, these studies do not take into account the development of the retail market, which is a fundamental element that explains the success of own-label brands.

Given the apparent gaps in the existing literature, which hinder the level of understanding of the full role of national culture on own-label brands' performance, the objectives of this thesis are therefore to fill these research gaps by studying the impact of culture on own-label brands performance and understanding the role of retail market development.

## 1.2 Research Description

Based on research background, this PhD dissertation aims to investigate the impact of culture on own-label brand performance, and the role of retail market development.

### 1.2.1 The Use of Hofstede's (1980, 2001) Five Cultural Dimensions

Culture is a very complex concept, which has been defined in hundreds of ways by researchers (Kroeber and Kluckohn, 1952). In this research, the author uses Hofstede's (1980; 1991) conceptualisation of culture, as it is one of the most widespread and validated theory used within marketing literature (Nakata and Sivakumar, 2001; Steenkamp, 2001). Hofstede's (1980) original framework distinguishes four dimensions of culture: power distance, individualism, masculinity and uncertainty avoidance. Subsequently, Hofstede and Bond (1988) added a fifth cultural dimension, named "Confucian Dynamism" – later termed as long-term orientation. More recently, Hofstede *et al.,* (2010) added a sixth cultural dimension: Indulgence – Restraint (IVR)[1].

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[1] According to Hofstede *et al.,* (2010) Michael Minkov, co-author of "*Cultures and Organizations Software of the Mind: Intercultural Cooperation and Its Importance for Survival*" Third Edition, extracted three dimensions from World Value Survey (WVS) data, which Minkov labelled *exclusionism versus universalism, indulgence*

Due to lack of adequate data, in this dissertation, a theoretical framework will be built by developing links between each of the first five dimensions (PDI, IDV, MAS, UAI, & LTO) of the Hofstede cultural model to own-label brand performance. To do this, a thorough review of past research was performed. This gave precise indications on the impact each cultural dimension would have on own-label brand performance. For instance, past research shows that in cultures with high levels of *power distance*, people place more importance on products' brand names than in low power distance cultures (Bristow and Asquith,1999), and global brands serve more often as standard brands (Kim and Zhang,2011). Secondly, the literature review reveals that Western *individualistic* cultures are more likely to buy own-label brands (Shannon and Mandhachitra, 2005), maybe because they are more brand-savvy (Sun *et al.,* 2004). Thirdly, past research shows that in *masculine* cultures, performance and achievement are important, which may lead consumers to buy status brands or products that show one's success (De Mooij and Hofstede, 2010). Fourthly, cultures displaying a high level of *uncertainty avoidance* tend to be more risk averse, which could prevent people from purchasing non-established brands (Bao *et al.,* 2003*).* Finally*, long-term oriented* countries tend to prefer well known (i.e., national or global) brands because they may be interested in forming a long-term relationship with these brands. Such past studies and many others allow this thesis to propose a precise theoretical framework.

## 1.2.2 The Use of Retail Market Development and Socio-Economic Variables

It would not be sufficient to build a model which only takes into account the five cultural dimensions and own-label performance. Indeed, many other variables play an important role in the explanation of own-label brand performance. The development of the retail market is an

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*versus restraint, and monumentalism versus flexhumility*. From Minkov's three dimensions, exclusionism versus universalism was strongly correlated with collectivism versus individualism. Monumentalism versus flexhumility correlated significantly with short-versus long-term orientation. However, Indulgence versus restraint (IVR) has been added as an entirely new sixth dimension (Hofstede *et al.,* p.45).

important example. The development of the retail market has evolved globally over the past few decades. This is due to the fastest retail-system transformation in history that has been sweeping across the emerging markets of East Asia, Central and Eastern Europe, and Latin America over the past decade, resulting in a profound impact on economies and societies in those regions (Wrigley and Lowe, 2007). Many empirical studies suggest that several elements of the retail market greatly impact on own-label brand performance, such as the size of the market (Dhar and Hoch, 1997), the modernity of the retail outlets (Goldman, 1974; Cuneo *et al.,* 2015), and the retail market concentration (Rubio and Yague, 2009). In view of this, one of the objectives of this thesis is to investigate the possible and positive association between retail market development and own-label brand performance.

Although the primary focus of this study is the influence of national culture dimensions on own-label brands performance, the thesis also control for several key elements related to a country's socioeconomic variables. This because research shows that an enlarged perspective on contingency theory, with the inclusion of socioeconomic variables, can provide a comprehensive understanding of the factors affecting the structure and functioning of complex organisations (Negandhi, 1983). Many empirical studies suggest that several socioeconomic elements can be correlated with retail market development or own-label brands performance. From these elements, this thesis will focus on: GDP per capita (Cotterill and Putsis, 2000; Steenkamp *et al.,* 2010); government expenditure (Douglas and Craig 2011; Reynolds *et al.,* 1994); and income distribution as represented by GINI index (Sebri and Zaccour 2013; Talukdar *et al.,* 2002). As mentioned earlier, these elements are not the focus of the study, but controlling their effects may allow us to better isolate the role of cultural dimensions in the model, and provide a stronger test of the hypotheses.

Therefore, this dissertation will investigate the impact of Hofstede's (1980, 2001) five cultural dimensions (PDI, IDV, MAS, UAI & LTO) on retail market development and own-label brand performance controlling three socio-economic variables: GDP per capita, Gini index and Government expenditure. A conceptual model needs to be created, dealing with the links between culture, retail market development and own-label brands performance. Such a model will rely upon an amalgamation of the relevant literature strands (e.g., sociology, psychology and economy), in order to present hypotheses arguing the interrelationships between the constructs under investigation.

### 1.2.3 Data Collection and Analysis

To test the conceptual model, this thesis built a database based on secondary collection, describing the cultural dimensions, retail market development, own-label performance and selected socio-economic variables for 65 countries all over the world. The study focused its secondary data collection on one specific industry: packaged food sold in the grocery retail sector. This is because the packaged food category of own-label brands has emerged as a fierce competitor of national brands (Lamey *et al.,* 2012). To analyse the data and test the conceptual framework, the study chose to use Structural Equation Modelling (SEM), as it was the only technique allowing us to simultaneously test all the relationships of the conceptual model (James *et al.,* 2006).

### 1.3 Research Contributions

The contribution this research makes towards both the academic and practical sectors will now be outlined. This thesis provides much-needed work on the impact of culture on own-label brand performance and the retail market development. As stated earlier, research detailing the influence of culture on own-label brand performance remains scarce. A few studies have attempted to investigate the role of national culture on own-label brand

performance (e.g., Herstein *et al.,* 2012; Shannon and Mandhachitara, 2005); however, these investigations remain partial. These studies only test one or two cultural dimensions to explore the effect of national culture on preference for own-label brands, whilst other studies have generally emphasised the importance of testing Hofstede's five national cultural dimensions (e.g., Kirkman *et al.,* 2006). In addition, past cross-cultural studies generally have not taken into account the development of the retail market on a national level, which is a fundamental factor in explaining the success of own-label brands. To fill the voids in research areas, this thesis employed Hofstede's five cultural dimensions: PDI, IDV, MAS, UAI & LTO and retail market development in order to understand the own-label brands performance. This study finds that individualism and long-term orientation significantly impact on the own-label brands performance. In addition, the research also reveals that three cultural dimensions, PDI, IDV & UAI also significantly impact on retail market development. Furthermore, this study shows that there is a significant relationship between retail market development and own-label brand performance. These empirical results therefore offer a clear reference point to both managers and practitioners for exploiting the opportunities that exist for taking own-label brands into the international arena based on sound principles.

Despite the criticisms levelled at Hofstede's model (see e.g., Oyserman *et al.,* 2002), this thesis reports interesting results using Hofstede's five cultural dimensions. Two of Hofstede's cultural dimensions, individualism and long-term orientation, play the predominant role in own-label brand performance. This study therefore validates Hofstede's cultural model, and claims that the model is not yet outdated. In addition, past cross-cultural studies on own-label brands generally only employ comparisons between two-countries, which is a major methodological concern (Cadogan, 2010; Engelen and Brettel, 2011), as it does not isolate different national cultural forces. To fill this research gap this study employed a large dataset

involving 65 countries. Thus, this research is pioneers in investigating the five cultural dimensions across a high number of nations.

Moreover, previous cross-cultural studies rarely incorporate socio-economic variables in their model. This study tested the impact of culture on own-label brand performance and the role of retail market development, controlling for several key elements related to a country's socioeconomic variables: GDP per capita, government expenditure and income distribution. Controlling for the impact of socio-economic elements allows this study to better isolate the role of cultural dimensions in the model, and to provide for a stronger test of the hypotheses.

Furthermore, the practical contribution of this study should improve managers' understanding of how different cultural orientations play a role in the performance of their strategy regarding own-labels. Primarily, the results will serve to highlight the important effects of culture on retail market development and levels of own-label brand performance. Specifically, this research should inform managers in the retail industry regarding the effect of different cultural dimensions on the performance of own-label brands and the development of the retail market. For managers, this research will highlight those contingent areas upon which they have to focus in order to generate the most beneficial results for their retail stores regarding own-label brand performance.

To summarise, this research will serve to indicate which, if any, cultural dimensions have the highest influence on the performance of own-label brands. The results of this thesis will serve to bolster the own-label brands literature, the retailing literature and the cross-culture literature available on the subject.

The following section presents the outline of the remainder of the thesis, which regards how to achieve the research objectives.

## 1.4 Thesis Structure

The rest of the thesis is organised as follows. Chapter Two provides a review of the relevant literature. Firstly, the chapter focuses on own-label brands and presents the definitions, classifications, advantages/disadvantages, historical background and factors influencing the market shares of own-label brands. Secondly, this chapter reviews the relevant literature on culture. In particular, it discusses three major cultural models: Hofstede's model, the Schwartz model and the GLOBE model. The chapter then analyses the links between culture and consumer behaviour, and, more importantly, presents a first picture of the relationships between culture and own-label brands highlighted in past research.

Subsequently, Chapter Three presents the conceptual background of the study, which emphasises the importance of the research topic and highlights the key gaps in research. This chapter then defines the dependent, independent and control variables of interest in this specific study. Furthermore, a discussion of contingency theory is offered, which provides the theoretical platform necessary to hypothesise how these variables (namely, culture, retail market development and own-label brands performance) relate to each other, resulting in a theoretical framework. Finally, Chapter Three presents the thesis' conceptual framework and associated hypotheses, which depict the impact of the five cultural dimensions on retail market development and own-label brand performance.

Chapter Four provides a detailed description of the procedures followed in order to construct the dataset used in this study. Firstly, this chapter justifies some important methodological

choices that were made, such as the preference for a cross-sectional over a longitudinal research design, or the use of secondary data. Chapter Four then presents the original sources used to find the needed-for research. Finally, the descriptive analysis of the study is presented.

Once data collection and the descriptive results have been presented, Chapter Five discusses the analysis of the data, to test the conceptual framework. In particular, Chapter Five describes the Structural Equation Modelling (SEM) methodology used, and explains its importance in marketing research, as well as the different steps that make up a SEM procedure. This chapter then explains the reasons why SEM is an appropriate method for this research. Finally, the chapter presents the results of the hypotheses testing.

Chapter Six presents the detailed summary and discussion of the results of the data analysis. This chapter then highlights the key contributions of our research, as well as the theoretical and managerial implications. Furthermore, this chapter discusses the main limitations of the study and recommends some potential areas of future research.

Finally, Chapter Seven presents an overall conclusion to the thesis.

# Chapter 2

# Own-Label Brands and Culture

## 2.1 Introduction

As explained in the introduction chapter, past studies show that own-label brands' performance drastically varies across countries. It is believe that culture can play an important role in this cross-country difference. However, the role of culture has rarely been adopted in past studies (e.g., Tifferet and Herstein, 2010). The second chapter of the thesis focus on the two main variables of the study: culture and own-label brands in order to review the relevant literature on these two key variables.

This chapter is divided into three key sections. **Section 2.2** presents the definition(s) and the classification of own-label brands. It highlights the advantages and disadvantages of the adoption of own-label brands. It also presents a brief review of the historical background of own-label brands. Further, it discusses the factors influencing the market shares of own-label brands as they have been highlighted in past research. **Section 2.3** reviews the relevant literature about culture. It presents the definitions of this important construct and discusses the different frameworks used to measure culture, among which the three major ones are: the Hofstede's model, the Schwartz model and the GLOBE model. Finally, based on the critical review of past studies, **Section 2.4** analyses the links between culture and consumer behaviour, and, more importantly, presents a first picture of the relationships between culture and own-label brands that have been highlighted in past research. Figure 2.1 provides a visual representation of the organisation of this chapter.

**Figure 2. 1: Organisation of Chapter 2**

| **2.2 Own-Label Brands** |
|---|
| Definition and classification<br>Advantages and disadvantages<br>Comparison between Western and Eastern countries<br>Factors affecting own-label brands performance |

↓

| **2.3 Culture** |
|---|
| Definition(s)<br>Key cultural frameworks (Hofstede, Schwartz, GLOBE) |

↓

| **2.4 Relationship Between Culture and Own-Label Brands Performance** |
|---|
| Culture and consumer behaviour<br>Culture and own-label brands |

## 2.2 Own-Label Brands

Own-label brands are an established part of retailing today. Academic and managerial interest in own-labels has increased in recent years because of the important growth of this type of brands. Manufacturers of national brands consider them as potential competitors, retailers see them as profit centres and consumers promote them as cost-effective alternatives (Goldsmith *et al.,* 2010). In this perspective, own-label brands are no longer considered as 'white label', and retailers are willing to sell them not only for their profitability but also for their contribution to the stores' brand identity (Gomez and Okazaki, 2007).

The role of own-label brands in retail decision making has become increasingly important. One of the most important decisions for retailers is the creation and maintenance of their store brands (Hansen and Singh, 2008). The introduction of own-labels is a formidable source of competition for national brands and an important source of profit (Hoch and Banerji, 1993).

Thus, it is described as one of the most important strategies developed by retailers in the last 30 years (Beres-Sennou, 2006).

## 2.2.1 Definition of Own-Label Brands

Own-label brands are also known as "private-labels" (Lamey *et al.,* 2007, Steenkamp *et al.,* 2010), "store brands or labels" (Richardson *et al.,* 1994; Richardson *et al.,* 1996), "retailer products/brands" (Davis 1998; Burt and Davis, 1999), "distributors' brands" (De Chernatony and Mcdonald, 1998) or "generic brands" (Cunningham *et al.,* 1982). Early research on own-label brands proposed different definitions of the concept. For instance, according to Frank and Boyd (1965, p.28) "[A] *private brand refers to* [a] *brand owned by either retailers or distributors as opposed to manufacturers*". Similarly, Schutte (1969, p.7) defined own-label brands as "*products owned and branded by organisations whose primary economic commitment is distribution rather than production*". Rothe and Lamont (1973, p.19) explain that "*a private brand is generally defined as one sponsored or owned by a company whose primary business is distribution and/or selling the given product line*". Dhar and Hoch (1997 p.208) describe a store brand as "*the only brand for which the retailers must take on all responsibility-from development, sourcing, and warehousing to merchandising and marketing*". Finally, Sethuraman (2009, p.759) explains that "*private labels or store brands are brands owned and marketed by retailers*".

A consensus of these definitions is that own-labels are brands that carry the retailer's name on the packaging over which the retailer has total responsibility including development, sourcing, warehousing, merchandising, setting product quality and controlling advertising and any promotional activity. Thus, own-label brands represent a retailer's own mark on the business, own identity, own image, and are sold exclusively by the retailer.

**2.2.2 Classification of Own-Label Brands**

Numerous classifications of own-label brands have been developed by previous research (e.g., Geyskens *et al.,* 2010). To successfully synthesise classifications of own-label brands featured in the extant literature, the author classifies them into three categories: (1) Economy own-label brands(2) Standard own-label brands and (3) Premium own-label brands.

*Economy own-label brands*

Geyskens *et al.,* (2010) describe economy own-label brands as value or budget. The authors explain that these brands are '*nofrills'* bottom-of-the-market targeting consumers who economise on more expensive ingredients to reduce costs (Geyskens *et al.,* 2010, p.791). This first type of own-label brands, economy own-labels, is also found in other classifications such as those developed by Huang and Huddleston's (2009) and Laaksonen and Reynolds (1994) who name them generic brands in terms of market positioning. These products are sold at low prices and their main goal is to serve consumers that have low willingness-to-pay (Berges-Sennou, 2006).

*Standard own-label brands*

Standard own-label brands, also referred to as regular own-labels, have been existing for a long time (Geyskens *et al.,* 2010). Huang and Huddleston (2009) describe this type as the largest group of own-labels and consider them as mimic brands. They compete directly with national brands in terms of positioning but their price is roughly 20 per cent lower than their branded product equivalent (Berges-Sennou, 2006). Conversely, these types of brands imitate mainstream-quality manufacturer brands and are positioned as mid-quality alternatives (Geyskens *et al.,* 2010). In some cases, manufacturers take legal actions against retailers'

standard own-label brands because they are mimicking market leader national brands in an extreme extent (Huang and Huddleston, 2009).

*Premium own-label brands*

Geyskens *et al.,* (2010) define premium own-label brands as the top end of the market. The market positioning of a premium own-label brand is to provide consumers with a high value-added product with an innovative design and sometimes even higher quality than national brands (Huang and Huddleston, 2009). As a competitive strategy, these brands typically sell their products for a slightly lower price than premium national brands (Geyskens *et al.,* 2010). Berges-Sennou (2006) claim that this type of own-label brands target more discerning consumers.

## 2.2.3 Advantages and Disadvantages of Own-Label Brands

### 2.2.3.1 Advantages

Own label brands are an established part of retailing today particularly in Western countries. This can be explained by a review of their benefits and drawbacks. Not only own-label brands are beneficial to consumers but also beneficial to retailers and even sometimes to manufacturers. The next sub-sections summarise the benefits of own-label brands for manufacturers, retailers and consumers.

*Manufacturers' Perspective*

For manufacturers, supplying own-label brands can be advantageous in terms of securing sizeable market shares, off-loading excess capacity, lowering their distribution costs, and avoiding the expense of national advertising campaigns (Uncles and Ellis, 1989). Manufacturing own-labels allows some national manufacturers to increase their revenues and can also constitute an excuse to raise price of their national brands (Hyman *et al.,* 2010). In

addition, own-label brands can reduce inter-manufacturer competition (Soberman and Parker, 2006). Indeed, the introduction of own-labels by a national manufacturer signals its commitment not to engage in promotions, thereby decreasing the incentive of other national brand manufacturers to engage in promotions (Hyman *et al.,* 2010).

### *Retailers' perspective*

A well-developed own-label brand not only contributes directly to a retailer's profitability, but also has positive indirect effects, such as an increased bargaining power with manufacturers (Berges-Sennou, 2006; Hansen *et al.,* 2006). Apart from providing higher retail margins in comparison to national brands, own-label brands add diversity to the product line in a retail category (Sasinandini and Hansa, 2010). They offer an opportunity for retailers to increase store traffic and build store loyalty (Dick *et al.,* 1996). In addition, Altintas *et al.,* (2010) claim that the introduction of own-label brands improve retailers' relationships with manufacturers and increase channel efficiency. Furthermore, own-label brands are a good investment and profit generator for retailers (Veloutsou *et al.,* 2004). They also create store image and profitability (Tifferet and Herstein, 2010) and establish brand reputation (Selnes, 1993). Finally, own-label brands have become an important contributor to retail differentiations and store patronage (Sasinandini and Hansa, 2010).

### *Consumers' perspective*

Very often, own-label brands are considered to mainly benefit many lower-income households (Collins-Dodd and Lindely, 2003). Indeed, these households purchase less expensive own-label brands to stretch their constrained budgets (Putsis and Dhar, 2001). That is why own-label brands benefit primarily to many consumers who are price-conscious and deal-prone customers (Pauwels and Shrinivasan, 2004). But own-label brands are also

important for many customers who are not necessarily constrained by their budget but, instead, reject the price-quality relationship (Deleersnyder *et al.,* 2007). A belief in the price-quality relationship discourages the purchase of lower-price own-labels (Ailawadi, 2001). However, a recent study reported that many consumers believe that own-label brands offer higher value for money (Deleersnyder *et al.,* 2007) relative to national brands. Finally, research has shown that some customers enjoy own-label brands as they represent the retailers they are loyal to, and they can allow them to fulfil different motivations linked to being high-store-loyal customers (Semeijn *et al.,* 2005).

### 2.2.3.2 Disadvantages

On the other hand, a large amount of criticism has been made to own-label brands. Specifically, a common criticism is linked to the act that own-label brands are often considered as copy-cats of a national brand (Reyes, 2006). They can therefore prevent manufacturers from being rewarded from their innovation effort, and sometimes, discourage innovation. Past research states that own-label brands' market share is not stable across different economic conditions; it generally goes up when the economy is suffering and down in stronger economic periods (Quelch and Harding, 1996).

Further, own-label brands lose their competitive advantage and face major threats when national brands are heavily supported by mass advertising, promotion, and other merchandising efforts (Dhar and Hoch, 1997, Narasimhan and Wilcox, 1998). National brands use these marketing tools to conquer the trust of consumers over own-label brands by delivering quality ingredients that are highlighted by attractive packaging (Barstow 2005). Own-label brands are considered to encounter more difficulties to successfully use this kind of strategy because of their image of "basic own-labels".

**2.2.4 Own-Label Brands – A Comparison Between Western and Eastern Countries**

The rate of adoption of own-label brands varies from region to region (Veloutsou *et al.,* 2004) according to their historical development. For example, Western European countries have a longer history of own-label brands' development and their market penetration is higher compared to their Eastern Asian counterparts (Lin *et al.,* 2009). The key factors, which explain this situation, include the shorter history of own-label brands in Asian market, the poor market knowledge, and the low familiarity with own-label brands (Mandhachitara *et al.,* 2007). More precisely, the genesis of own-label brands in the Western countries is centuries old, pioneered by retailers such as A&P, then the great Atlantic and Pacific Tea Company (Hoch and Banerji, 1993). However, it is only over the past 15 years that the retail grocery structure in many Eastern Asian leading economies has changed significantly from locally-owned supermarkets and small family stores (mom-and-pop) to the more international hypermarket format (Mandhachitra *et al.,* 2007).

Nielsen (2009) reports that one of the main challenges for retailers is still to convince Eastern shoppers to trust own-label brands. Their attitudes toward own-label brands are significantly more negative compared to Western shoppers. Thus, most shoppers are still very brand loyal and believe that national brands remain a better value offering and hence feel better buying them for their family. Today, nearly every U.S. and European household has purchased own-label brands or products (Geyskens *et al.,* 2010), however, this is not the case in the Eastern Asian countries.

Consequently, in developed Western countries, own-labels occupy a noticeable level of market share; Switzerland 46%, UK 43%, US 17%, Australia 14%, whereas in the Eastern countries it is significantly lower with Hong Kong and Singapore taking the lead with 5% and

3% respectively, as described in Figure 2.2 (Nielsen, 2011). Despite more retailers being committed to own-label brands development it still remains relatively small in all markets-although it is growing strongly in the major Eastern countries (Nielsen, 2011).

**Figure 2. 2: Own-Label Brands Market Share**
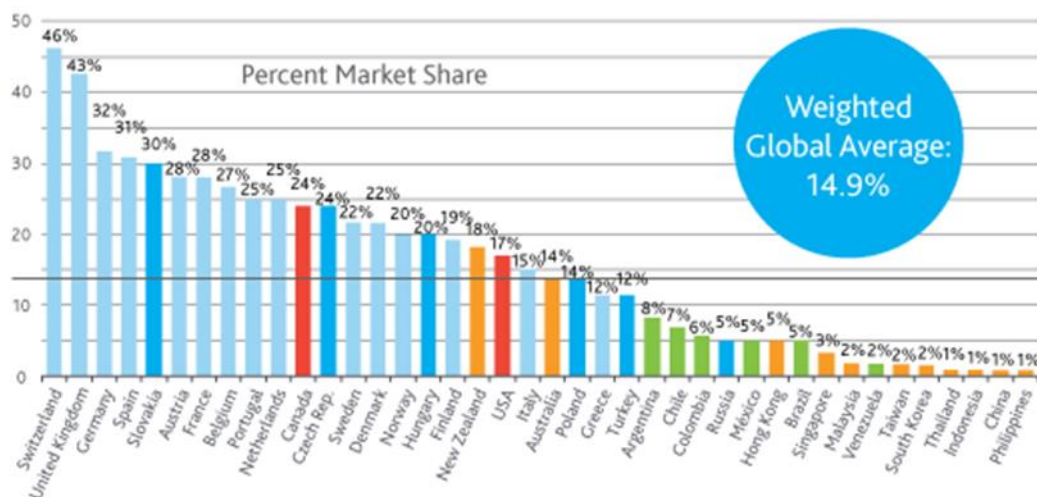


**Source: Nielsen (2011)**

### 2.2.5 Factors Influencing Market Shares of Own-Label Brands

Past studies have found three key sets of factors which affect market shares of own-label brands: factors linked to consumers, factors linked to retailers, and factors linked to manufacturers (Hoch and Banerji, 1993; Dhar and Hoch, 1997). Additionally, several authors have also linked own-label brands' performance to economic factors (Lamey *et al.,* 2007; Quelch and Harding, 1996). The following sections discuss these four factors that influence market shares of own-label brands.

### 2.2.5.1 Consumer Factors

Consumers' price sensitivity is a major factor explaining the success/failure of own-label brands. Starzynski (1993) found that heavy own-label brands users had lower incomes and larger blue-collar households with part-time female heads of household. Moreover, Hoch and

Banerji (1993) emphasise on the fact that the effect of own-label bands quality on consumer choice and market share may be moderated by price. Becker (1995) argues that systematic differences in consumer price sensitivity should emerge due to differences in opportunity costs of time associated with consumer demographic characteristics.

Another important factor is represented by consumers' demographics. Past research has shown that there were systematic differences in terms of own-label brands performance according to consumer demographic characteristics of a store's trading area (Dick *et al.,* 1995). Own-label brands obtained a high share when the trading area contained more elderly people, lower-value housing and lower incomes, larger families, more working women and higher education levels (Dhar and Hoch, 1997).

### 2.2.5.2 Retailer Factors

Past research has shown that the greater the number of retail competitors and the greater the homogeneity of their market shares, the more intense the competition and the lower the market shares of own-label brands (Dhar and Hoch, 1997). However, Corstjens and Lal (2000) point out that the marketing of own-label brands by a number of establishments coupled with the strong competition among them favours the aggregate own-label brands market shares for the set of establishments. Indeed, this situation motivates the development of quality control programs for these brands and triggers price competition.

### 2.2.5.3 Manufacturer Factors

Manufacturers of national brands are in direct competition with retailers offering own-label brands on the market (Hoch and Banerji, 1993). According to Dhar and Hoch, (1997) national brands directly and indirectly influence own-label brands market shares. The direct influence is linked to the various marketing strategies such as promotion tactics that manufacturers develop to attract consumers. The manufacturers' pull decisions (e.g., advertising, coupons)

can influence the retailer's decisions on the regular price, feature advertising, display and price cut for the brand (Ailawadi *et al.* 2009). In the long run most manufacturer pull tactics serve to increase differentiation, reduce price sensitivity, and increase top-of-mind awareness, each of which increase demand for national brands and hurt own-label brands' market shares (Dhar and Hoch, 1997).The indirect influence is linked to the push tactics offered to the retail channel. The manufacturers' push tactics represent decisions such as wholesale prices, trade promotions and sales force efforts and greatly influence the retailers' decisions. Thus, greater levels of national brands promotion should limit market shares of own-label brands (Lal, 1990).

### 2.2.5.4 Economy Factors

Some prior studies have observed that own-label brands' market share generally goes up when the economy is suffering, while goes down in stronger economic periods (Quelch and Harding 1996, p. 99). Similarly, Nandan and Dickinson (1994) state that during difficult economic times, the popularity of own-label brands tend to increase, whereas in periods of relative economic prosperity, the share of national brands increases. Anecdotal evidence (e.g. Deloitte and Touche 2003, p.2) suggests "*private labels have typically experienced significant growth in times of recession, due to their low prices, and the reduced disposable income of households*". A similar finding reported by a past study confirms that a country's own-labels share increases when the economy is suffering and shrinks when the economy is flourishing (Lamey *et al.,* 2007). This is due to the fact that consumers tend to save on basic expenses during difficult times, which leads them away from expensive national brands and make them more prone to buy cheaper retailers' brands.

Next section discusses the second key variable of our study: culture.

**2.3 Culture**

Culture is a pervasive influence which underlies all facets of social behaviour and interaction (Craig and Douglas, 2006). It is the "*glue that binds groups together*" (De Mooij 2011, p.33) and it is embodied in the objects used in everyday life and in modes of communication in the society (Craig and Douglas, 2006). Without cultural patterns – organised systems of significant symbols – people would have difficulty living together (De Mooij, 2011). Therefore, culture is identity: a sort of "*collective fingerprint*" (Usuiner 1996, p.9). The anthropologist Geertz (1973) views culture as a set of control mechanisms – plans, recipes, rules, instructions – for the governing of behaviour.

Culture gives collective keys to a society for people to leave together and understand each other (De Mooij, 2011). Indeed, culture develops conventions for sampling information from the environment, and also for weighing the sampled elements (Triandis, 2006). For example, people in individualist cultures, such as those from North and Western Europe or North America, sample with high probability elements of the personal self (e.g. I am busy, I am kind) (Triandis, 2008). People from collectivist cultures, such as those from Asia, Africa and South America, show mostly elements of the collective self (e.g. my family thinks I am too busy, my co-workers think I am kind) (Triandis, 1989).

According to Triandis (1996) the study of cultural differences aims, in part, to identify cultural regions within which cultures are more or less alike. In general, geography is an important way to identify such regions. For example, the West, consisting of Europe and North America, and the East, consisting of the cultures of East Asia, can be seen as different regions.

**2.3.1 Definitions of Culture**

The definition of culture has been controversial in the social sciences (Triandis, 1996) because culture is viewed as a vague and abstract notion (Usunier, 1996). Cultural anthropologists have defined culture in many ways (Kroeber and Kluckhohn, 1952). For example, it has been defined as the human-made part of the environment (Herskovits 1955); this definition leads to a distinction between objective culture (e.g., tools or roads) and subjective culture for instance beliefs, attitudes, norms, or values (Triandis, 1972). It has also been defined as a complex schedule of reinforcements (Skinner 1981), as being to humans what a program is to a computer (Hofstede, 1991). Some researchers have emphasised culture as shared behaviours (Goodenough, 1970), and others emphasised shared cognitive systems (Goodenough, 1971) or meanings (Pelto and Pelto, 1975). Others have highlighted culture as shared symbolic systems (Schneider 1968). Further, Keesing (1981) defined culture as a system of competencies shared by a group of people. Some have mentioned shared cognitive maps (Murdock 1945), but others have argued that culture is a construct in the mind of the investigator (Spiro 1951). Other definitions have stressed that culture is to society what memory is to individuals (Kluckhohn, 1954) and have viewed it as consisting of shared elements of subjective culture and behavioural patterns found among those who speak a particular language dialect, in a particular geographic region, during a specific historic period of time (Triandis, 1994).

From this great variety of different definitions, the common agreement is that culture consists of shared elements (Shweder and LeVine, 1984), that it provides the standards for perceiving, believing, evaluating, communicating, a historic period, and a geographic location (Triandis, 1996). The shared elements of culture are transmitted from generation to generation with modifications (House *et al.,* 2004).

**2.3.2 Key Cultural Frameworks**

Academic literature has identified several frameworks used to define and measure culture. However, only three major cultural frameworks are widely accepted and used in most studies (Craig and Douglas, 2006; De Mooij 2013; Fischer and Mansell, 2009): Hofstede's (1980, 1991) Cultural Framework; Schwartz's (1992, 1994) Cultural Framework and GLOBE (2004) (Global Leadership and Organisational Behaviour Effectiveness) Cultural Framework. In the next sub-sections, we present a brief discussion of each of these three cultural frameworks.

**2.3.2.1. Hofstede's Cultural Framework**

Hofstede's (1980, 1991) original research on culture focused on IBM employees in 72 nations and in two periods of time (1967-1969 and 1971-1973). Hofstede's cultural framework is based on four fundamental problems which society faces (Steenkamp, 2001):

- The relationship between the individual and the group;

- Social inequality;

- Social implications of gender; and

- Handling of uncertainty inherent in economic and social processes.

Hofstede (1980, 1991) found four dimensions and named these as power distance, individualism/collectivism, masculinity-femininity, and uncertainty avoidance. Based on his work with Bond (1988), the author later added long vs. short-term orientation (called Confucian dynamism at first) as the fifth cultural dimension. The five cultural dimensions remain the heart of much cultural research. More recently, Hofstede added sixth cultural dimension indulgence vs. restraint (IVR)[2]. This dimension emerged from Minkov's (2007) analysis of the World Value Survey (WVS)[3].

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[2] Based on WVS data Minkov (2007) extracted three dimensions, which he labelled exclusionism versus universalism, indulgence versus restraint, and monumentalism versus flexhumility. Minkov (2007) joined Hofstede's research team and he integrated the results of his three cultural dimensions into Hofstede's cultural dimensions. From the three Minkov dimensions, exclusionism versus universalism was strongly correlated with

### 1. *Power distance*

The power distance dimension can be defined as *"the extent to which the less powerful members of organisations and institutions accept and expect that power is distributed unequally"* (Hofstede 2001, p.19). It is reflected in the values of the less powerful members of society as well as in those of the more powerful ones (Hofstede, 1980). According to Hofstede (1984) people in large power distance societies accept a hierarchical order in which everybody has a place which needs no further justifications. Likewise, people in Small Power Distance societies strive for power equalisation and demand justification for power inequalities (Hofstede 1984). In large power distance cultures, everyone has his or hers rightful place in a social hierarchy thus one's social status must be clear so that others can show proper respect (De Mooij and Hofstede, 2010). The fundamental issue addressed by this dimension is how a society handles inequalities among people when they occur (Hofstede, 1984).

### 2. *Individualism/Collectivism*

Individualism pertains to *societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty* (Hofstede and Hofstede 2005, p.76).In other words, people in individualistic countries prefer to act as individuals rather than as members of group (Steenkamp *et al.,* 1999). Thus, people in individualistic cultures are 'I'- conscious and self-

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collectivism versus individualism. Monumentalism versus flexhumility correlated significantly with short- versus long-term orientation. However, Indulgence versus restraint (IVR) has been added as an entirely new, sixth dimension (Hofstede et al., 2010)

[3] According to Hofstede et al., (2010) in the early 1980s departments of divinity at six European universities, concerned with a loss of Christian faith, jointly surveyed the values of their countries' populations through public-opinion survey methods. In the following years their "European Values Survey" expanded and changed focus: led by U.S. sociologist Ronald Inglehart, it grew into a periodic World Value Survey (WVS).

actualisation is important (De Mooij and Hofstede, 2010). In collectivistic countries, there is a close-knit social structure, in which people expect their group to care for them in exchange for unwavering loyalty (Steenkamp *et al.,* 1999). Thus, in collectivistic cultures, people are 'we'-conscious and avoiding loss of face is important (De Mooij and Hofstede, 2010). Further, De Mooij and Hofstede (2010) state that people in individualistic cultures are low-context communication cultures with explicit verbal communication. In contrast, collectivistic cultures are high-context communication cultures, with an indirect style of communication (De Mooij and Hofstede, 2010). The fundamental issue addressed by this dimension is how a society handles inequalities among people when they occur (Hofstede, 1984).

### 3. Masculinity/Femininity

This dimension refers to *"the distribution of emotional roles between the genders, which is another fundamental problem for any society to which a range of solutions are found; it oppose "tough" masculine to "tender" feminine societies"* (Hofstede, 2001 p.20). Hofstede and Bond (1998) branded "masculinity" as the assertive pole and "femininity" as the nurturing pole. The common pattern of male assertiveness and female nurturance leads to male dominance at least in matters of politics and economic life; within the household, whether this is a nuclear or an extended family group, different societies show different distributions of power between genders (Hofstede, 1984). For example, women in the feminine countries have the same nurturing values as men. In contrast, in masculine countries women are somewhat more assertive and competitive, but not as much as men. Therefore masculine countries show a gap between men's values and women's values (Hofstede and Bond, 1998). In masculine societies, performance and achievement are important, specifically achievement must be demonstrated, so status brands or products such as jewellery are important to show one's success (De Mooij, 2011).

Further, an important aspect of this dimension is the role differentiation, where in feminine societies it is small, while large in masculine societies (De Mooij and Hofstede, 2010). De Mooij and Hofstede (2010) insist that in masculine cultures, household work is less shared between husband and wife compared to feminine cultures. Furthermore, men also do more household shopping in feminine cultures. The fundamental issue addressed by this dimension is the way in which a society allocates social (as opposed to biological) role to genders (Hofstede, 1984).

### 4. Uncertainty avoidance

The uncertainty avoidance is defined as "*the extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured situations*" (Hofstede 2001, p.19). On the basis of the definition, unstructured situations are defined as novel, unknown, surprising, or different from usual (Hofstede and Bond, 1998). Strong uncertainty avoidance societies maintain rigid codes of belief and behaviour and are intolerant towards deviant persons and ideas, whereas weak uncertainty avoidance societies maintain a more relaxed atmosphere in which practice counts more than principles and deviance is more easily tolerated (Hofstede, 1984). People from cultures characterised by high uncertainty avoidance are less open to change and innovation than people from low uncertainty avoidance cultures (De Mooij and Hofstede, 2010).

In particular, Hofstede and Bond (1998) explained that:

➢ People in uncertainty-avoiding countries are more emotional and are motivated by inner nervous energy.

➢ Uncertainty-accepting cultures are more tolerant of behaviour and opinions that differ from their own; they try to have as few rules as possible, and on the philosophical and religious level they are relativist, allowing many currents to flow side by side.

➢ People within these cultures are more phlegmatic and contemplative; their environment does not expect them to express emotions.

The fundamental issue addressed by this dimension is how a society reacts on the fact that time only runs one way and that the future is unknown, whether it tries to control the future or to let it happen (Hofstede, 1984).

### 5. Long-term versus Short-term Orientation

This dimension refers to *"the extent to which a culture programs its members to accept delayed gratification on their material, social, and emotional needs"* (Hofstede 2001, p.20). De Mooij and Hofstede (2010) list the values included in long-term orientation which consist of perseverance, ordering relationships by status, thrift, and having a sense of shame. The opposite is short-term orientation, which includes personal steadiness and stability, and respect for tradition (De Mooij and Hofstede2010). Hofstede and Hofstede (2005) explains family life in the high-LTO culture is a pragmatic arrangement but is supposed to be based on real affection and with attention paid to small children. On the other hand, Hofstede (2001) said that children growing up in a short LTO culture experience two opposing forces. One is toward immediate need gratification, spending, sensitivity to social trends in consumption and enjoying leisure time. The other leans toward respecting "muss": traditions, face-saving, being seen as a stable individual, respecting the social codes of marriage even if love has gone, tolerance and respect for others as a matter of principle, as well as reciprocation of greetings, favours and gifts as a social ritual (Hofstede, 2001).

### 6. Indulgence vs. Restraint (IVR)

Indulgence versus restraint (IVR) related to the gratification versus control of basic human desires related to enjoying life (Hofstede, 2011). Hofstede *et al.,* (2010, p.281) define IVR as *"indulgence stands for a tendency to allow relatively free gratification of basic and natural*

*human desires related to enjoying life and having fun. Its opposite pole, restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms".* Accoding to Hofstede (2011) indulgence tends to prevail in South and North America, in Western Europe and in parts of Sub-Sahara Africa. Restraint prevails in Eastern Europe, in Asia and in the Muslim world. Mediterranean Europe takes a middle position on this dimension (Hofstede, 2011).

### 2.3.2.2. Schwartz's Cultural Framework

Schwartz (1992, 1994) has proposed an alternative theory of the structure of cultural values to that developed by Hofstede (1980). According to Ros *et al.,* (1999), Schwartz's theory of basic human values has two core components. First, it specifies ten motivationally distinct types of values that are postulated to be recognised by members of most societies and to encompass the different types of values that guide them (Ros *et al.,* 1999). Second, the theory specifies how these ten types of values relate dynamically to one another. More specifically, it specifies which values are compatible and mutually supportive, and which ones are opposed and likely to conflict with one another (Ros *et al.,* 1999). Below are the ten basic values, each defined in terms of its central goal:

1. Power: The defining goal of power is social status and prestige, control or dominance over people and resources (Schwartz 1992, 1994). Recently, Schwartz *et al.,* (2012) define power into three potential subtypes. The first subtype dominance over people – power to constrain others to do what one wants. The second is control of material resources – power to control events through one's material assets. The third is face – maintaining and protecting prestige (Schwartz *et al.,* 2012).

2. Achievement: The defining goal of achievement is personal success through demonstrating competence according to social standards (Schwartz 1992, 1994).

Competent performance that generate resources for individuals to survive and for groups and institutions to reach their objectives (Schwartz, 2012).

3.  Hedonism: The defining goal of hedonism is pleasure and sensuous gratification for oneself (Schwartz 1992, 1994). Hedonism values derive from organismic needs and the pleasure associated with satisfying them (Schwartz, 2012).

4.  Stimulation: Excitement, novelty, and challenge in life are the defining goals of stimulation (Schwartz 1992, 1994). Stimulation values derive from the organismic need for variety and stimulation in order to maintain an optimal, positive, rather than threatening, level of activation (Schwartz, 2012).

5.  Self-direction: The defining goals of self-direction are independent thought and action-choosing, creating, exploring (Schwartz 1992, 1994). Self-direction derives from organismic needs for control and mastery and interactional requirements of autonomy and independence (Schwartz, 2012).

6.  Universalism: The defining goals of universalism are understanding, appreciation, tolerance, and protection for the welfare of all people and for nature (Schwartz 1992, 1994).Universalism values derive from survival needs of individual and groups (Schwartz 2012). But people do not recognise these needs until they encounter others beyond the extended primary group and until they become aware of the scarcity of natural resources (Ros *et al.,* 1999).

7.  Benevolence: The defining goal of benevolence is preservation and enhancement of the welfare of people with whom one is in frequent personal contact (Schwartz 1992, 1994). Benevolence values emphasise voluntary concern for others' welfare (helpful, honest, forgiving, responsible, loyal true friendship, mature love) (Schwartz, 2012).

8.  Tradition: Respect for, commitment to, and acceptance of the customs and ideas that traditional culture or religion provides on the self are the defining goals of tradition

(Schwartz 1992, 1994).According to Schwartz (2012) groups everywhere develop practices, symbols, ideas, and beliefs that represent their shared experience and fate. These become sanctioned as valued group customs and traditions (Schwartz, 2012).

9. Conformity: The defining goals of conformity are restraint of actions, inclinations, impulses likely to upset or harm others and to violate social expectations or norms (Schwartz, 1992, 1994). Conformity values derive from the requirement that individuals inhibit inclinations that might disrupt and undermine smooth interaction and group functioning (Schwartz, 2012).

10. Security: Safety, harmony, and stability of society, or relationships, and of self are the defining goals of security values (Schwartz 1992, 1994). According to Schwartz and Bilsky (1990) the values into which this needs is transformed extend beyond the physical safety of the individual. Psychological or mental health and integrity may become as important for individual survival as is physical health (Schwartz and Bilsky, 1990).

Schwartz (2006) clarifies that the ten values are intended to include all the core values recognised in cultures around the world. Furthermore, these ten values cover the distinct content categories found in earlier value theories, in value questionnaires from different cultures, and in religious and philosophical discussions of values (Schwartz, 2006). These ten values are derived from three universal requirements of the human condition: needs of individuals as biological organisms, requisites of coordinated social interaction, and survival and welfare needs of groups (Schwartz, 2006). Ros *et al.,* (1999) report that actions taken in the pursuit of each type of values have psychological, practical, and social consequences that may conflict or may be compatible with the pursuit of other value types. Finally, it is possible to classify all the items found in lists of specific values from different cultures, into one of

these ten motivationally distinct basic values. Steenkamp (2001) report that Schwartz's framework identified three societal issues:

- Relations between individual and group;

- Assuring responsible social behaviour; and

- The role of humankind in the natural and social world.

**2.3.2.3 GLOBE Cultural Framework**

House *et al.,* (2004) have conducted a GLOBE project to identify cultural dimensions across 65 nations. A major focus of this study was the identification of leadership styles associated with different cultural patterns. The GLOBE project has identified nine culture-level dimensions. House *et al.,* (2002, p.5) and House *et al.,* (2004, p.16) describe culture along the following nine dimensions:

1. *Uncertainty Avoidance* is defined as the extent to which members of an organisation or society strive to avoid uncertainty by reliance on social norms, rituals, and bureaucratic practices to alleviate the unpredictability of future events. This dimension is related to a high share of home corporations in national research and development. Such cultures are generally characterised by extensive and modern telecommunication system, important scientific progress and an important support of economic activities by the government.

2. *Power Distance* is defined as the degree to which members of society expect and agree that power should be unequally shared. This is related to a limited number of scientists per unit of gross national product. These are societies in which rich differ from the poor and thus economic growth often results in unemployment and, instead

of helping the poor, makes their position even less satisfactory. Empirically, there is generally a lower societal health and less human development (e.g., education).

3. *Institutional Collectivism* is a dimension that is especially high in Confucian Asia cultures. This reflects the degree to which organisational and societal institutional practices encourage and reward collective distribution of resources and collective actions. This dimension is characteristic of societies that are less segmented than in other parts of the world.

4. *In-Group Collectivism* reflects the degree to which individuals express pride, loyalty and cohesiveness in their organisations or families.

5. *Gender Egalitarianism* is the extent to which an organisation or a society minimises gender role differences and gender discrimination. This is related to high proportion of women earning an income and women have access to resources. Gender egalitarianism positively correlated with longevity.

6. *Assertiveness* refers to the degree to which individuals in organisations or societies are assertive, confrontational, and aggressive in social relationships. Societies high in this dimension generally perform well in terms of global competitiveness but exhibit also low levels of psychological health.

7. *Future Orientation* is the degree to which individuals in organisations or societies engage in future-oriented behaviours such as planning, investing in the future, and delaying gratification. This is related to a large number of trademarks per capita.

8. *Performance Orientation* refers to the extent to which an organisation or society encourages and rewards group members for performance improvement and excellence. This is related to high religious diversity and a low concentration of the largest religion, including a culture that is non-dogmatic with a creative orientation.

Empirically this attribute of a culture helps economic accomplishments. However, people in such cultures tend not to live as long as in some other cultures.

9. *Human Orientation* is the degree to which individuals in organisations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others. People who live in such cultures tend to use extended, warm greetings. Hospitality is very important. People generally show more empathy in high human orientation cultures than in cultures scoring low in this dimension.

Figure 2.3 provides a visual summary of the three main frameworks used to define and measure culture. Visually organising these frameworks in such a way allows to show that numerous dimensions are similar across the three frameworks. The Hofstede model contains less dimensions, which allows for a more simple and parsimonious view of culture. In contrast, the other two models contain more dimensions (respectively 9 and 10 dimensions for the Globe and Schwartz models). They allow for a more complete but also complex view of culture. The reasons why the thesis uses the Hofstede's model will be explicated in great details in the next chapter.

**Figure 2. 3: Visual Summary of the Three Main Cultural Frameworks**



| Hofstede Model | Schwartz Model |
|---|---|
| - Power Distance<br>- Uncertainty Avoidance<br>- Individualism/Collectivism<br>- Masculinity/Feminity<br>- Long-Term/Short-Term Orientation | - Power     - Universalism<br>- Achievement    - Benevolence<br>- Hedonism    - Tradition<br>- Stimulation    - Uniformity<br>- Self-Direction    - Security |

**CULTURE**

**Globe Model**

- Power Distance      - Assertiveness
-Uncertainty Avoidance   - Future Orientation
- Institutional Collectivism   - Performance Orientation
- In-Group Collectivism   - Human Orientation
- Gender Egalitarianism

## 2.3.3 Other Cultural Frameworks

### 2.3.3.1 Kluckhohn and Strodbeck's (1961) Cultural Framework

In 1961, Kluckhohn and Strodbeck (1961) developed the cultural orientation framework which consist of six value orientations. The authors based their work on three assumptions: a) there is a limited number of common human problems for which all people must at all times find some solution; b) while there is variability in solutions of all the problems, it is neither limitless nor randomness but it is definitely variable within a range of possible solutions; and c) all alternatives of all solutions are present in all societies at all times but are differently preferred (Kluckhohn and Strodbeck 1961). Kluckhohn and Strodbeck's (1961) conducted an initial test of the framework in five cultures in South-Western United States. Later they identified a set of six cultural orientations with two or three possible variation each. The six value orientations answer the following specific questions:

1. *Nature of humans*

- What is the nature of human beings: are they good, evil or neutral?

2. *Relationship to nature*

- What is our relationship to nature: are we subjected to nature, in harmony with nature, or do we have mastery over it?

3. *Relationships among people*

- What is our relationship to other human beings: is it lineal (ordered position within groups), collateral (primacy given to goals and welfare of groups), or individualistic (primacy given to the individual)?

4. *Activity*

- What is our primary mode of activity: is our basic orientation one of being-in-becoming, doing or reflecting?

5. *Time*

- How do we view time: do we focus on the past, present, or future?

6. *Space*

- How do we think about space: is it public, private, or mixed?

Prior research (see Cho *et al.,* 1999) criticise Kluckhohn and Strodbeck's (1961) cultural orientation framework particularly on *Activity Orientation* dimension. When operationalising this cultural dimension in their research the authors discovered that "the data from the pre-test study were so noisy that the dimension was deleted from the main study" (Cho *et al.,* 1999, p.61).

### 2.3.3.2 Hall's (1981) Cultural Context of Communications Framework

Hall (1981) proposes a theory of Cultural Context of Communications. This theory deals with the relative importance of the "context" of communication across cultures. Hall's cultural

theory suggests that societies range in the degree of their orientations (e.g. high-context vs. low-context). In high-context societies, the external environment and nonverbal behaviours are important for understanding the conveying messages. On the other hand, in low-context cultures, a large portion of the meaning is explicitly given in the words (Hall 1981).

Hall (1979) classified eleven countries on a low-context/high-context continuum depicting the extent to which the communication in these societies was explicit (e.g. low context) or implicit (e.g. high context). The ranking of these cultures from high-context to low-context included Japanese, Arabian, Latin American, Spanish, Italian, English, French, American, Scandinavian, German, and Swiss (Cateora and Graham, 2007). In the low-context cultures, verbal or explicit communication, that is, "what" is said carries most of the meaning. In contrast, in the high-context cultures, much emphasis is placed on the implicit nonverbal contextual factors, such as "who" said it, "when" was it said, "how" was it said, "where" was it said, "why" was it said (Manrai and Manrai, 2010).

### 2.3.3.3 Trompenaars's (1993) Cultural Dimensions

Trompenaars (1993) proposes a model of seven fundamental dimensions of national culture for understanding the diversity in business. The first five of these are derived directly from Parsons and Shils (1951), namely *universalism versus particularism, individualism versus collectivism, neutral versus emotional, specific versus diffuse, achievement versus ascription*. The addition of the remaining dimensions: *orientation in time* and *attitudes towards the environment* was influenced by the survey of Kluckhohn and Strodtbeck (1961). Trompenaars's (1993) database covers about 15,000 respondents of whom some were participants in the author's cross-cultural training programs, while others were employees in 30 companies in 50 different countries. Among the respondents, 75% held management jobs

while the remaining respondents held administrative posts and were predominantly females. However, Hofstede (1996) strongly criticises Trompenaars (1993) cultural frameworks and highlights some serious shortcoming, as follows:

- Trompenaars (1993) did not start his research with an open-ended inventory of issues that were on the minds of his future respondents around the world; he took his concepts, as well as most of his questions, from the American literature of the middle of the century, which was unavoidably ethnocentric.

- Trompenaars (1993) did not change his concepts on the basis of his own findings nor did he follow the development of the state-of-the-art in comparative culture research since 1961.

- In Trompenaars' work, controversial issues central to cultural conflicts such as power struggle, corruption, exploitation, aggression, anxiety, and differing concepts of masculinity and femininity, are rarely addressed.

In addition, Trompenaars (1993) developed a questionnaire inspired by the theories of Parsons and Shils (1951) and Kluckhohn and Strodtbeck (1961). The author administered this to personnel of his business clients (Hofstede and McCrae, 2004). Trompenaars (1993) claims finding in his data the seven dimensions of culture that the theories postulated, but a multidimensional scaling analysis of his data did not confirm this (Smith *et al.,* 1996, Smith *et al.,* 1995).

## 2.4 Relationships between Culture and Own-Label Brands

After having reviewed the literature about own-label brands and culture, the last objective of this chapter is to provide a first picture of the relationships between culture and own-label brands as highlighted in past research. The following sub-sections first show the relationship

between culture and consumer behaviour and then present a panorama of past studies about the link between culture and own-label brands.

### 2.4.1 Culture and Consumer Behaviour

An assumption generally made by cultural research is that behavioural patterns of a particular culture express the shared values and beliefs of that culture (Boer and Fischer, 2013). Cultural values are considered as basic motivators in life and as behaviour prescriptors (Rokeach 1973), including consumer behaviour (Laroche *et al.,* 2004). Practitioners and researchers in international marketing have shown that groups of people with common political, ethnic, or geographic characteristics share important traits which are eventually reflected in their consumption behaviour (Singh 2006).

Engel *et al.,* (1993) show that culture does not only affect the specific products that people buy but also the structure of consumption as well as the individual decision-making process. Culture affects the drives that motivate people to take further action; it also determines what forms of communication are permitted about consumption problems at hand (Delener and Neelankavil 1990; O'Guinn and Meyer, 1984) and even the degree of search behaviour that an individual finds appropriate (Hirshman 1981).

Culture's influence on marketing activities continues to increase in today's global marketplace (Penaloza and Gilly 1999; De Mooij, 2013). Indeed, the influence of culture has been demonstrated in nearly all facets of marketing efforts, including advertising (Laroche *et al.,* 2001), market entry model (Bello and Dahringer 1985), Internet usage (Quelch and Klein 1996; Smith *et al.,* 2013), shopping practices (Ackerman and Tellis 2001; Lim and Park, 2013), multinational marketing teams (Salk and Brannen 2000), and marketing environments themselves (Doran 2002).

**2.4.2 Culture and Own-label Brands**

For more than four decades, researchers and practitioners have conducted research on own-label brands particularly in Western countries. However, in mid-nineties Richardson *et al.,* (1996) raised the importance of cross-cultural study on own-label brands and highlighted a research limitation *".......study has ignored cultural differences which might partially account for the greater success of private label products in Europe. Future research could attempt to understand the role culture plays in this process"* (p.181). Since then, only a handful of studies have been conducted to understand own-label consumption across countries (e.g. Shannon and Mandhachitra 2005; Tifferet and Herstein 2010).

In particular, some studies examining own-label brands in a cross-cultural setting do not really deal with culture but just perceive as a cross-country investigation of own-label brands' consumption. For instance, Anchor and Kourilova (2009) find that different nations are at different stages of development in terms of own-label brands' perceptions. Lin *et al.,* (2009) report that, compared to Western European countries that have a long history of own-label brands' development and highly sophisticated own-label brands markets, Asian markets are relatively underdeveloped in terms of own-label brands penetration.

Further, other studies attempt to study the role of culture in the cross-country differences. For instance, De Mooij and Hofstede (2002) hypothesise that the individualism/collectivism dimension is of great importance: individualistic Western cultures will better accept own-label brands than Eastern collectivist cultures. This hypothesis is supported by Lupton *et al.,* (2010) who report that, compared to Chinese consumers, individualistic Western US consumers are more comfortable with the quality of own-label products and are more willing to purchase this type of brands, especially if the purchase saves money. However, some inconsistent results are sometimes found as Tifferet and Herstein (2010) find that

individualistic consumers are less inclined to purchase own-label brands. This is due to the fact that individualistic consumers are more brand-savvy (Sun *et al.,* 2004).

Another variable that seems to have an important role to purchase is familiarity with own-label brands. Shannon and Mandhachitra (2005) and Mandhachitra *et al.,* (2007) report that Eastern consumers are less familiar with own-label brands than Westerners. They find that Americans have greater knowledge of own-label brands than Thai consumers. This is supported by other studies such as the Lupton *et al.,* (2010) cross-cultural study of beliefs and perceptions of own-label brands in the US and China. The authors find that US students are more familiar with the quality of own-label products compared to Chinese students and are more willing to purchase this type of brands.

In a similar line, Lin *et al.,* (2009) study claims that lack of familiarity with own-label brands is one of the main reasons as to why own-label brands have a low market share in Taiwan. Additionally, Eastern consumers are more risk averse, more prone to reliance on extrinsic cues and evince less satisfaction with own-label brands (Shannon and Mandhachitra 2005; De Mooij and Hofstede 2002). Moss and Vinten (2001) urge that this is due to Eastern collectivist cultures characterised as having high uncertainty avoidance, thus their shoppers may prefer products with lower risk.

Finally, it is important to note that some studies claim that the influence of culture on own-label brand consumption depends on the type of product (Guerrero *et al.,* 2000). For example, Lee and Hyman (2008) find that collectivist Koreans' attitudes toward own-label brands may be more critical than Westerners' attitudes. For functional products, which are not subject to social status concerns, Koreans tend to focus on objective value (i.e., price and performance);

but for hedonic products, which are subject to social status concerns, Koreans tend to focus on surrogate quality indicators (e.g., brand and store name).

The following table (Table 2.1) provides a list of past studies focusing on the relationship between culture and own-label brands' purchase. The table also indicates the framework used to study culture, the countries involved in the study, the methodology used to sample, collect and analyse data. An important element to consider regarding these studies is that they often are cross-country comparisons rather than actual cross-cultural comparisons. It is therefore sometimes difficult to disentangle the results that are due to differences between countries and differences between cultures. This is one of the limitations of extant research in this domain that this thesis aims to address. The following chapter of this dissertation is devoted to the explanation of the precise objectives of the study and to the description of the conceptual framework.

**Table 2. 1: Prior Key Research on Cross-Cultural Studies of Own-Label Brands**

| Author(s) | Research Aim(s) | Dimension(s) used | Method | Data Collection Tool (s) | Where Data Collected | Sample Size | Sampling Technique | Data Analysis Technique |
|---|---|---|---|---|---|---|---|---|
| Erdem*et al.,* (2004) | To test whether consumer uncertainty about store brands; perceived quality of store brands; consistency in store-brand offerings over time; and consumer attitudes towards price, quality, and risk underlie the differential success of store brands in the United States and Europe. | Uncertainty Avoidance | Quantitative approach | Scanner-panel data | USA, UK and Spain | USA: 110 stores and 314 households; <br><br>UK: 176 stores and214 households <br><br>Spain: 84 stores and 167 households | Not specified | Explicit Model |
| Herstein*et al.,* (2012) | To explore the inclination to purchase own-label brands and the importance attributed to brand dimensions (name, price, packaging, country of origin and so on) using three personality traits: individualism, materialism and need for cognition. | Individualism | Quantitative approach | Questionnaire | Mediterranean countries: Greece <br><br>Israel <br><br>Portugal & <br><br>Turkey | Greece = 200 <br><br>Israel =150 <br><br>Portugal = 200 <br><br>Turkey = 133 | Not specified | Factor analysis <br><br>Principle component analysis <br><br>MANOVA <br><br>ANOVA |
| Shannon and Mandhachitra (2005) | To examine private-label grocery shopping attitudes and behaviours. | Individualism | Quantitative approach | Survey (Questionnaires and interviews) | USA and Thailand | USA: 156 <br><br>Thailand: 244 | Random convenience sampling | MANOVA, Univariate |
| Song (2012) | To identify the possible explanations for consumers' unwillingness to purchase own brands in the Asian market, using the case of China and then to provide recommendations on how international and domestic retailers can improve consumer own brands acceptance in the Asian market, with its huge opportunities in the retail sector. | Power Distance <br><br>Individualism | Qualitative approach | Semi-structured in-depth interviews | China | Thirteen grocery consultants from Shanghai | Random convenience sampling | Not specified |
| Tifferet and Herstein | To explore whether individualism affects consumers' preference for private versus national brands; | Individualism | Quantitative approach | Survey (Questionnaires) | Israel | Arabic: 100 <br><br>Russian: 100 | Not specified | Factor analysis, ANCOVA |

| (2010) | To assess the effect of individualism on the perceived importance of brand image dimensions; and<br><br>To assess the degree of cross-cultural differences in individualism within a specific country. | | | | | Amharic: 100<br><br>Hebrew: 100 | | |

**2.5 Summary Remarks**

To summarise, the major constructs of interest (i.e., culture, own-label brands) in this study have now been introduced, defined and reviewed. The review of the literature has been conducted with the aim to clearly identify the research gap that the current study addresses. It has been shown that, whilst previous research into the constructs used in this study is active and generally flourishing, the investigation of the impact of culture on own-label brands performance is an area of the literature that requires attention. Chapter Three will now explain in greater detail the relationships between the constructs which have been discussed in this section, leading to the formulation of hypotheses to be investigated in this thesis and the presentation of the conceptual model to be tested.

# Chapter 3

# Conceptual Model

## 3.1 Introduction

As discussed earlier (see Introduction Chapter) past studies have shown that own-label brands' performance differs across countries, and despite the extant literature on this domain, the role of culture has been largely overlooked. In this context, the objective of this study, as aforementioned, is to investigate whether and how culture influences own-label brands' performance. This chapter review the literature dealing with this topic and present a conceptual model. The conceptual framework assume that culture (represented by the five Hofstede's cultural dimensions: power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance (UAI) and long-term orientation (LTO) influences the development of the retail market, which in turn, influences the performance of own-label brands.

This chapter is divided into three key sections: **Section 3.2** presents the background of the study. Based on an analysis of past studies exploring the impact of culture on own-label brands performance, this section present the importance of the topic and highlight the key research gaps that have motivated this study. **Section 3.3** defines the main variables of interest that are culture, retail market development and own-label brands performance in the context of this specific study. The section also explain the necessity to take into account social and economic control variables such as GDP per capita, the Gini Index and also government expenditure. Moreover, this section elaborate on contingency theory to hypothesise how these

variables, in particular, culture, retail market development and own-label brands performance relate to each other in our general conceptual framework. Finally, **Section 3.4** present a detailed conceptual framework which depicts the hypotheses formulated to illustrate the potential impact of each cultural dimension (PDI, IDV, MAS, UAI, & LTO) on retail market development and own-label brands' performance. Figure 3.1 provides a visual illustration of the organisation of this chapter.

**Figure 3. 1: Organisation of Chapter 3**

| **3.2: Background of the Study** |
|---|
| Presentation of the main variables<br>The four theoretical gaps in the literature |

| **3.3 General Conceptual Framework** |
|---|
| ▪ Own-label brands performance across countries<br>▪ Retail market development<br>• Retail market development across countries<br>• Impact of retail market development on own-label brands<br>▪ Culture<br>• Use of contingency theory to hypothesise the impact of culture<br>• Justification of the use of Hofstede Model<br>▪ Necessity to control by socio-economic variables |

| **3.4: Detailed Conceptual Framework** |
|---|
| Hypotheses development<br>Impact of culture on retail market development<br>Impact of retail market development on own-label brands performance |

## 3.2 Background of the Study

To explain the difference across countries in terms of own-label brands' performance, a first important variable to take into account is the development of the retail market. Indeed, retail market development represents an obvious predictor of the performance of own-label brands;

the more important and organised the retail chains are in a country, the more successful the own-labels they manage are likely to be. Much of the extant research in this area has focused on the impact of retail market development on own-label brands' performance, and particularly on different aspects of the retail market, such as retail market concentration (Connor and Peterson, 1992; Morris 1979; Oubina *et al.,* 2007), retailer market share and price setting behaviour (Cotterill and Putsis 2000; Cotterill *et al.,* 2000), brand market share (Raju *et al.,* 1995; Rubio and Yague, 2009), type of distribution channels (Fernie and Pierrel, 1996), or chain size and retail competition (Dhar and Hoch 1997; Cuneo *et al.,* 2015).

However, only very few studies have investigated the role of culture in the performance of own-label brands. Taking culture into account is however very important. Richardson *et al.,* (1996, p. 181) first raised the importance of studying the role of culture in own-label brands performance, claiming that research "*has ignored cultural differences which might partially account for the greater success of private label products in Europe. Future research could attempt to understand the role culture plays in this process*". Since then, only few cross-cultural studies have been conducted to understand the relationship between culture and consumers' behaviour involving own-label brands. Among them, Shannon and Mandhachitara (2005) conducted a cross-cultural study aiming to understand the difference in attitudes and purchase behaviour of own-label brands between Eastern and Western consumers. This research trend was followed by several other studies in an attempt to enhance understanding on the impact of culture on own-labels versus national brands (see e.g., Herstein *et al.,* 2012; Tifferet and Herstein, 2010; Song, 2012).

However, these prior cross-cultural studies have four key limitations that represent research gaps and thus providing the impetus for the present research. *First,* these studies focus on the consumer perspective, without taking into account the role of the retail market in the performance of own-label brands. Conducting a study that combines the perspectives of

culture and retail market would be highly beneficial. Indeed "*by becoming aware of the retail institutional systems within which they operate, retailers can work to create a more efficient, and more profitable, retail system*" (Hirschman, 1978, p. 31).

*Second*, these previous studies only tested the impact of one or two cultural dimensions on own-label brands' preference. Therefore, they do not capture the entire construct of culture as defined by the different multi-dimensional models. Triandis (2004, p. 90) however raises the importance of testing the five cultural dimensions and urges that "*over the years individualism-collectivism dimension has become the most important in studying cultural differences, though the other four Hofstede dimensions also deserve attention*". In a similar vein, Kirkman *et al.*, (2006, p. 285) emphasise that "*of the five cultural values, individualism/collectivism was included most frequently in group/organisation level studies, perhaps because of its close theoretical ties to group behaviour. However, links between other cultural values and team processes and performance are equally plausible*".

*Third*, these past cross-cultural studies investigating the difference between countries in terms of own-label brand consumption generally only perform two-country comparisons. Engelen and Brettel (2011) raise a major methodological concern regarding two-country comparisons. The authors explain that comparing only two countries does not allow to isolate the impact of culture as it is not possible to completely rule out the influence of other factors such as the stages of macroeconomic development or the law system. Therefore, two-country comparisons do not allow researchers to trace back the influence of particular national cultural dimensions.

*Fourth*, previous studies only rarely incorporate socio-economic variables such as GDP in their model. This is an important limitation as such variables could partially explain the

development of markets and the success of some firms within a country, and more specifically the development of the retail market or the performance of own-label brands.

The objectives of the present study are to overcome these four limitations in order to contribute to a better understanding of the impact of culture on own-label brands' performance. First, this study takes into account the development of the retail market by incorporating it as a mediator between the five cultural dimensions and own-label brands' performance. Second, it explores the impact of Hofstede's five cultural dimensions (Power distance, Individualism, Masculinity, Uncertainty Avoidance and Long-term Orientation) on own-label brands' performance. Third, this study goes as step further than a mere comparison between two countries; instead this study uses secondary data about cultural dimensions, retail market development and own-labels performance from 65 countries. Fourth, this thesis includes several control variables in the model, such as GDP, government expenses or the GINI Index (representing the income repartition within a country). Table 3.1 illustrates how this research fills these four limitations by comparing it with previous studies.

**Table 3. 1: Impact of Culture on Own-Label Brands Performance**

| Author(s) | Retail Market Perspective | Socio-Economic Perspective | More than Two Cultural Dimension | More than Two Countries |
|---|---|---|---|---|
| Erdem*et al.,* (2004) | Yes | No | No | Yes |
| Herstein*et al.,* (2012) | No | No | No | Yes |
| Shannon and Mandhachitara (2005) | No | No | No | No |
| Song (2012) | No | No | No | No |
| Tifferet and Herstein (2010) | No | No | No | No |
| **Our Study** | **Yes** | **Yes** | **Yes** | **Yes** |

**3.3 General Conceptual Framework**

The second part of the Chapter presents a general conceptual framework that is represented by Figure 3.2. The following paragraphs justify the use of the different variables composing this framework and the general relationships that hypothesise between all of them. First, it show

how own-label brands performance differs across countries and why it is important to understand what explains this situation. Second, it explains why it is important to incorporate the development of the retail market in the model and why it is important to hypothesise an influence of retail market development on own-label brands performance. Third, relying on the contingency theory (see e.g., Tayeb 1987; Tosi and Slocum, 1984; Sousa and Voss, 2008), it will explain why it is essential to hypothesise an influence of culture on retail market development and explain why the study uses the dimensions of the Hofstede's model to operationalise culture. Fourth, it discusses the importance of taking into account socioeconomic variables as control variables and why the study chooses the following specific variables: GDP, Gini index and Government expenditure.

**Figure 3. 2: Impact of Culture on Own-Label Brands Performance**
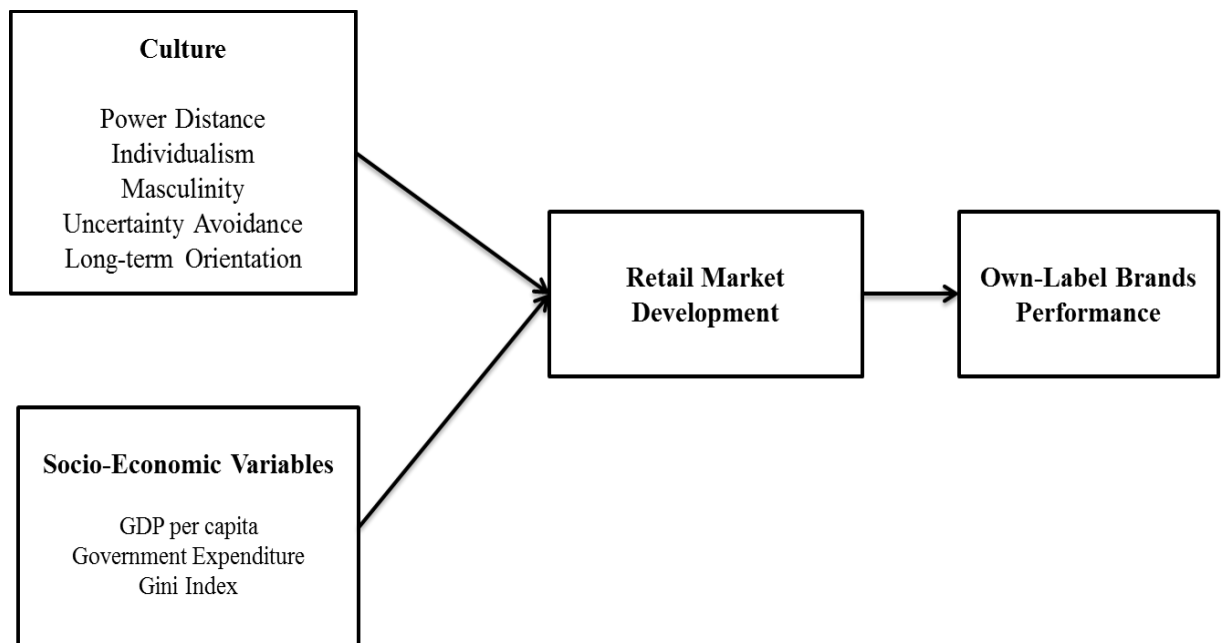


### 3.3.1 Own-Label Brands Performance Across Countries

The growth of own-label brands represents one of the most notable trends in marketing in recent decades (Szymanowski and Gijsbrechts, 2012). In particular, own-label brands have

emerged as fierce competitors of national brands in the consumer packaged goods (CPG) industry. According to Steenkamp and Geyskens (2014) Western Europe is the most developed own-label brands region, with own-label goods accounting for up to 46% of total CPG consumption in the United Kingdom, 35% in Germany, and 33% in Spain. In the United States, consumers allocate more than 20% of their total CPG spending to own-label brands. Today, nearly every U.S. and European household has purchased some own-label brand and own-labels are present in almost every category in the store (Geyskens *et al.,* 2010). Globally the market shares of own-label brands in most CPG categories now account for more than 20% of grocery sales (Lamey *et al.,* 2012). Nielsen (2010) analyse the size of the market of own-label brands of six regions (Asia Pacific, Latin America, Europe, North America and Middle East) which reports that:

*Asia Pacific*

In most Asian markets, own-label brands are still relatively underdeveloped with only Hong Kong having a share above 5% overall (Nielsen, 2010). There has been significant investment by many leading retail chains into launching new own-label products over the last five years and they are gaining acceptance particularly in the basic commodity categories. In these categories, such as cooking oil, rice, bathroom tissue, market shares can reach up to 20% and 30% in some countries (Nielsen, 2010). In the Pacific markets of Australia and New Zealand, own-label brands is a much more established phenomenon, with the majority of households regularly purchasing own-label brands, which account for up to one-quarter of all supermarket sales.

*Latin America*

Own-label brands continue to have a stable presence in Latin America . Specifically, in Chile, own-label brands represent 8.4% of the market as of April 2010. Market share remained

relatively flat in Argentina and Mexico, reporting shares of 7.6% and 6.6% respectively during the rolling year ending April 2010. While Mexico's own-label brands' market shares was flat, sales grew 23% compared with the previous period i.e. April, 2009 (Nielsen 2010).

*Europe*

Own-label brands continues to show solid performance in most European nations, with Switzerland, the United Kingdom and Germany leading the way reporting own-label brand value shares of 46%, 43%, and 42% respectively in 2012 (Nielsen, 2010). Poland and Turkey witnessed sharp growth in own-label brands sales and penetration over the review period, as discounters and supermarkets eroded the share of traditional grocers.

*North America*

Own-label brands have taken off in the U.S. for the year ending July 2010; own-label brands unit sales reached an average 22% share across all departments, with share gains in all but dairy (Nielsen, 2010). Own-label brands unit shares range from a high of 40% in the dairy department to a low of less than 1% in alcoholic beverages. In Canada, own-label brands represented $11.4 billion in national sales for ending July 2010, which is 18.3% of overall consumer packaged goods spend. Over the past year, own-label brand share has declined slightly with overall dollar sales flat, while the total market increased +3% (Nielsen, 2010).

*The Middle East*

Middle Eastern consumption patterns often run counter to the West for a variety of reasons, and respondents in this region indicated the least likelihood of purchasing private label brands (Nielsen, 2010). However, as awareness has increased over the last few years, volume is growing – albeit from a very small base. The market research shows that only 18% of shoppers in the United Arab Emirates perceive own-label brands as better value for the money,

certain categories such as household cleaners are regarded more favourable (Nielsen 2010). Finally, one-fourth (26%) of shoppers in Saudi Arabia consider these own-label brands as worthy (Nielsen, 2010).

## 3.3.2 The Use of Retail Market Development and its Impact on Own-Label Brands' Performance

To understand the performance of own-label brands in a specific country, it is necessary to take the development of the retail market of this country into account. Indeed, the more developed the retailers are in a country, the more one can expect their own-label brands to be performing well compared to manufacturer brands. This section briefly discusses the development of the retail market in various regions and the impact of retail market development on own-label brands' performance.

### 3.3.2.1 Retail Market Development

The development of the retail market has been rapidly changed all around the globe over the past decades. This is due to the fastest retail-system transformation in history that has been sweeping across the emerging markets of East Asia, Central and Eastern Europe, and Latin America over the past decade with a profound impact on economies and societies in those regions (Wrigley and Lowe, 2007).

Literature also reports that the development of the retail market across the globe is due to the diffusion of modern food retail rolled out in three waves (Reardon *et al.,* 2005). According to Reardon *et al.,* (2012) the first-wave countries (in Latin America, Central Europe, and South Africa) tended to go from a small share (ca. 5-10%) of the modern food retail in overall food retail in the early 1990s to some 50% or more by the mid-2000s. The second wave, in the mid-to late 1990s, was in Southeast Asia (outside transition countries like Vietnam), Central America, and Mexico. The second wave countries in Asia started later and reached a range of

30% to 50% share by mid 2000s. The third wave, in the late 1990s and 2000s, has been China, Vietnam, India, and Russia. In Africa, outside South Africa and mainly in eastern/southern African countries, the supermarket revolution is just starting. .

Despite the fact that modern retail formats are proliferating in developing countries, the developed world has the largest per capita market for both total grocery expenditures and total grocery sales in modern formats (Tandon *et al.,* 2011). A recent study, for instance, reports that per capita expenditures in North America (excluding Mexico), Western Europe, and Australasia (Australia and New Zealand) in 2009 dwarf those of other regions. Per capita total grocery expenditures of Western countries are at least three times larger than Eastern Europe, and over ten times larger than in Asia, the Middle East and Africa. In terms of grocery expenditures in modern formats, this difference becomes even slightly larger between the regions (Tandon *et al.,* 2011).

Literature further reports that the development of the retail market in advanced economies like the UK and North America underwent a profound concentration process (Crew, 2000). For example, in the UK only five retailers controlled 60% of the grocery market in the 1990s (Marsden, 1998). Several studies claimed that the increase in retail market concentration in developed economies is due to retail consolidations, acquisitions, and the growth of the major retailers (Aalto-Setala, 2002; Schultz and Dewar, 1984). Other research also reports that, the retail market concentration is due to the long history of big modern retailers existing in the country (Hollingsworth, 2004).

Further, based on Euromonitor data, the International Market Bureau (2010) analyses the development of the retail markets in different regions: Asia Pacific, Australasia, Latin America, Europe, North America and Middle East & Africa. Below, it summarise the key points of this analysis.

*Asia-Pacific.* Overall, the store-based retail market grew by 39% in value terms between 2003 and 2008 in this region. More specifically, discounters and forecourt retailers experienced a strong development (even if they still do not account for a large share of value sales). The already important supermarket channel gained ground at a fast pace, due in large part to its growth in the region's three fastest growing markets: China, India and Vietnam. Local companies dominate the market in China and Vietnam, while locally-based retailers have taken over operations in India.

*Australasia.* The supermarket channel accounted for 60% of value sales in 2008. Due to this strong performance, the development of other channels in the region has been hindered. Discounters are present only in Australia and appear to provide the most solid competition to supermarkets in the short term, given their similar size and their lower prices.

*Eastern Europe.* As a result of rising consumer spending power and the availability of comparatively cheap land, many modern retailers have expanded into Eastern Europe. This region saw the fastest growth for grocery retailing between 2003 and 2008 with a 140% growth rate. The most successful players in the Eastern European market are retailers based in Western Europe. Discounters, with a compound annual growth rate (CAGR) of 34% in current value terms, and hypermarket, with 26%, where the fastest growing channels, supported by growth within the Russian market.

*Latin America.* The growing importance of hypermarket and supermarket channels in Argentina, Brazil and Mexico helped bolster their development at a regional level. These countries alone accounted for 61% of all the additional value sales made in the region between 2003 and 2008. The discounter channel has also gained importance in Latin America as a result of its success in Mexico, where Wal-Mart and Organizacion Soriana expanded the

presence of the discounter brands. Visits to small, independent grocers remain embedded in consumer shopping patterns, as this channel still accounted for 36% of the market.

*Middle East and Africa.* Traditional channels sales in the Middle East and Africa accounted for above average market shares between 2003 and 2008 (for instance, 90% in Morocco, 40% in South Africa or 55% in Saudi Arabia). Despite these results, the Middle East and Africa could become an important source of growth for global retailers in the longer term, as the region experiences growing wealth, urbanisation and the mirroring of global strategies by local companies. While national laws may hamper modern growth, traditional formats will eventually lose ground in this shifting market.

*North America.* Between 2003 and 2008, the grocery market in North America expanded by a CAGR of 6%, while the hypermarket channel accounted for 49% of additional sales, growing at a CAGR of 14%. North American consumers have demonstrated a preference for convenience and "shopping on the go" during this period (for instance the strong presence of Wal-Mart). Consequently, supermarkets suffered a 6% loss in market shares. Other channels evolved differently, with a small increase enjoyed by discounters and a larger decline experienced by small, independent grocers.

*Western Europe.* In 2008, modern retailing in Western Europe accounted for more sales than the global average. Small, independent grocers had a sales share of between 11% and 27% in countries such as France, Spain, Germany and Ireland. Food/drink/tobacco specialists lost an even higher share of the market, as modern retailer continued to dominate. Traditional channels evolved differently according to specific countries (they struggle in France while they grow in Norway and Sweden. Discounters' presence increased while mid-market supermarkets lost ground.

In sum, the development of the retail market in different regions indicate that while countries and markets across the globe show considerable heterogeneity in terms of the development stage (Reinartz *et al.,* 2011).

**3.3.2.2 The Impact of Retail Market Development on Own-Label Brands Performance**

Previous research provides a sound theoretical platform on which to hypothesise the impact of the retail market development on own-label brand performance. First, Goldman (1974) argues that the more developed a retail market is, the more modern the channels and outlets composing this market are. Prior studies report that modern distribution channels such as hypermarkets, supermarkets often merchandise multi-line product categories under their own-label brands (Shannon, 2009). This strategy helps these retailers to achieve efficiencies and greater margins, through control of their own marketing and their supply chains (Bell, 2003).

Second, past studies report that the development of the retail market is often accompanied by an increasing concentration of retailers. This increasing concentration represents one of the major factors influencing own-label brands' market shares (Laaksonen and Reynolds, 1994; Steenkamp and Dekimpe, 1997; Trazijan, 2004). This is explained by the fact that higher retail market concentration means that a fewer number of individual retailers represent a higher part of the market, and consequently a higher proportion if the sales of the manufacturers that supply their products to these retailers. Manufacturers are therefore more dependent on these retailers to sell their products and, consequently, more prone to accept their business conditions. Because retailers have greater buying power through retail concentration, it is easier to require from manufacturers to supply retailer brands, which in turn makes own-label brands' share increase. This is in line with the results of a study by Laaksonen and Reynolds (1994) which that shows that, in well-developed retail markets such as the UK, Belgium and the Netherlands, the higher own-label brand penetration rate is due to the fact that more concentrated retailers have the power to control suppliers. By contrast, in

less developed European retail markets, such as Italy and Portugal, less concentrated retailers do not have enough buying power to control their suppliers, which explains why own-label brand shares are relatively lower than in the well-developed retail markets (Laaksonen and Reynolds, 1994).

Similarly, Husson and Long (1994) claim that the reason why American own-label brands' market share is lower than in some other countries, such as the UK, Canada, France, and the Netherland, is that the retail market concentration is lower. The cumulative market share of the top ten American supermarket chains is around 68%, which corresponds to the cumulative market share of the top five retailers in these other markets (Husson and Long, 1994). In other words, the authors support the assumption that, other things being equal, the higher the retail market concentration, the higher the own-label brand market shares.

Based on the scholarly evidence of these aforementioned studies this study argues that a country with a greater level of retail market development will display higher levels of own-label market share. Thus, there should be a positive significant relationship between retail market development and own-label brands' performance.

### 3.3.3 Culture and its Impact on Retail Market Development

### 3.3.3.1 Contingency Theory

To build the conceptual framework this thesis relies on contingency theory (Burns and Stalker, 1961; Lawrence and Lorsch, 1967). Contingency theory proposes that organisational structure is dependent on organisational context, and that context and structure affect performance (Hall, 1987). In other words, the structure of an organisation is closely related to the context within which it functions, and much of the variation in organisation structure might be explained by contextual factors (Pugh *et al.,* 1969). These contextual factors are of various nature. They may for instance be retail market size, technology, or culture (Drazin and Van

den Ven, 1985; Pugh *et al.,* 1969). Tayeb (1987) argues that these contingency variables are central to cross-cultural comparative studies because it enables the researcher to control the variance of contingency factors. For this reason, contingency theory is used to study the impact of culture on own-label brands and to propose the mediating role of retail market structure variable.

Contingency theory is one of the major streams of thinking that attempts to understand how organisations behave and react to their environment (Birkinshaw *et al.,* 2002). Prominent contingency theories have been proposed and tested in order to study different issues such as organisational environments, characteristics and structures (Lawrence and Lorsch, 1967; Perrow, 1967; Woodward, 1965), competitive conditions and organisational strategies (Hambrick 1983; Hofer, 1975; Porter, 1980), and organisational characteristics and behavioural processes (Fiedler, 1964; House, 1971; Vroom and Yetton, 1973). Contingency theory is defined as "*the environment-strategy-structure congruency in terms of their effect on the performance of a firm and try to explain under what conditions certain organisational designs are more effective than others*" (Vekatraman and Prescott, 1990, p.8).

According to Van de Ven and Drazin (1985) contingency theory "*dominated the scholarly study of organisational design and performance*" (p. 334) in the 1960s and 1970s. However, in the 1980s it faced a variety of conceptual and empirical critiques (Gresov 1989, Schoonhoven 1981; Tosi and Slocum 1984) and it subsequently lost ground to other theoretical perspectives (Birkinshaw *et al.,* 2002). While contingency theory *perse* still has its adherents (e.g., Donaldosn, 1995), there is a shift in emphasis in the literature towards a so-called *configurational* approach in which superior performance is seen as a functional of multiple interacting environmental and structural characteristics, rather than one or two primary contingencies (Galunic and Eisenhardt, 1994; Gresov and Drazin 1997; Meyer *et al.,* 1993; Van de Ven and Drazin, 1985). However, this does not affect the choice of contingency

theory as the main underlying theory as the general hypotheses would remain similar in the use of contingency or configurational theories.

### 3.3.3.2. The Impact of Culture on Retail Market Development

Cross-country differences in terms of retail market are very well depicted in the following description. According to Herbig (1998) Hong Kong supermarkets, compared to those in the United States, carry a higher proportion of fresh goods, are smaller quantities per customer, and are located more closely to each other. The Japanese emphasise the freshness and quality of produce; Lawson, a leading convenience store, has food delivered three times daily – midnight, before noon, and in the early evening. Shoppers visit stores frequently for small quantities rather than buying in bulk. Italian distributor is characterised by a very fragmented retail and wholesale structure. In the Netherlands, buyers' cooperatives deal directly with manufacturers. In Germany, mail-order sales are important; it is not so in Portugal. In Norway, regional distributors predominate. Consumer cooperatives have traditionally been popular in Europe; they control almost one quarter of food sales in Switzerland and claim one-third of Swiss households as members. Over 80 percent of Kenya's retail and wholesale businesses are controlled by Asians. Chinese dominate in the Philippines, Indonesia, and Malaysia. Finland has fewer stores per capita because general line retailers predominate. In Finland, four wholesaling houses handle the major portions of all trade; one such wholesaler, Kesko, controls over 20 percent of the market (Herbig, 1998).

Goldman (1974) also illustrates these behavioural differences across cultures. In the developing economies consumers frequently visit retail stores of traditional distribution channels to purchase their food. Consumers purchase decisions are heavily influenced by this store visit behaviour. For instance, consumers from developing countries tend to divide their food purchase among a number of store types. They buy groceries in the grocery store, fresh meats in butcher shops, and purchase produce, dairy products, eggs, and fresh baked goods in

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specialised outlets. These consumers shop for food products very frequently i.e. at least once per day. These consumers tend to buy small amounts of food items in each shopping trip. These consumers tend to buy mainly food stores located in their immediate neighbourhoods and trade regularly in the same stores (Goldman 1974).

Further, past research shows that culture has a considerable impact on the development of retail market particularly on the types of distribution channels (Kale and McIntyre, 1991; Bandyopadhyay *et al.,* 1994; Runyan *et al.,* 2010). For instance, developing economies are often characterised by high-context cultures that rely heavily on personal relationships, friendships, and a general knowledge of current business activities in the marketplace (Goldstucker, 1968; Moyer, 1964; Rotblat, 1975; Samiee, 1990). Interactions between channel members are significantly affected by cultural imperatives that may go unnoticed by outsiders (Samiee, 1993). This view was supported by Goldman (1974). According to Goldman (1974) consumers in developing countries tend to place a great deal of emphasis on personal relationships with their retailers. Moreover, they tend to avoid unfamiliar environments. This behaviour may result in greater loyalty to a specific food store and in a tendency to miss better shopping alternatives. Also, the ability of people in developing countries to project themselves in unfamiliar situations – empathy – was generally found to be low (Goldman 1974). The lower a person's empathy, the more limited is his/her outreach. Outreach may also be limited when consumers view the corner store as a social centre where they meet their friends and neighbours. This is likely decrease the tendency to shop in modern store located in another neighbourhood (Glodman, 1974). [4]

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[4] Nonetheless, food stores of traditional distribution channel are not necessarily restricted to developing economies (Herbig, 1998). They are also exist in developed economies where food retail formats of traditional distribution channel often operate alongside food retail formats of modern distribution channel (Goldman and Hino, 2005). One of the key factors of the existence of traditional retail stores in the developed economies is ethnic-cultural minorities such as Muslims in the UK (Jamal, 1995; Penaloza and Gilly, 1994) and Mexicans in the USA (Ackerman and Tellis, 2001; Lavin, 1996) make many of their food purchases in the retail stores of

Past research also suggests that culture impacts retail market concentration, another important component of retail market development. Goldman *et al.* (2002) report that in advanced Asian economies such as Hong Kong, South Korea, Thailand and Taiwan, all the elements are gathered that should allow big retailers to acquire important market shares, which should subsequently lead to higher levels of market concentration. For example, international retailers such as Carrefour, Ahold, Tesco, Wal-Markt and Metro have operated for a long time, and have performed consolidations and acquisitions of national retailers, and benefit from a relatively high consumers' standard of living which should allow them to purchase in big chains (Goldman *et al.,* 2002). In spite of this situation, the authors show that big retailer chains' cumulative market share is well below 50% (Goldman *et al.,* 2002). In studying this phenomenon, Goldman and Hino (2005) suggest that national culture is one of the main factors that influence the growth of modern retailers' development. For instance, in some countries, cultural norms dictate that women should not venture unaccompanied out of the "safe" radius around the home. As a result unaccompanied women buy only in the neighbourhood small size stores, and not in the bigger and more distant supermarkets.

Moreover, social and cultural factors affect the food retailing structure (Brown, 1987; Kaynak and Cavusgil, 1982), which subsequently impacts retail market development. Wrigley (1992, p.747), for example, illustrated how different '*retailer-regulatory state'* relations in the US and the UK have shaped very different grocery retailing sectors. While tight and strongly enforced anti-trust legislation in the post-war decades in the US served to protect small local retailers and inhibited the development of big-size retailers, a regulatory environment emerged in Britain which was '*lenient pragmatic and benign*' in the face of increasing concentration and retailer power.

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traditional distribution channel. Interestingly, recent studies however reports that the performance of traditional retail stores is stronger compared to modern retailers in highly developed countries.

The above discussion suggests that retail market development should be contingent on culture in a way that is consistent with contingency theory.

### 3.3.4 The Choice of Hofstede's Model

As discussed in the first part of this thesis, defining culture has proven to be one of the most difficult and controversial tasks (Minkov *et al.,* 2012). Kroeber and Kluckhohn (1952) identified more than 160 ways in which culture can be defined. According to Hofstede (2001, p.9) culture represents *"the collective programming of the mind that distinguishes the members of one group or category of people from another"*. Different models have been developed to analyse and measure culture in the academic literature (Kluckhohn and Strodbeck's 1961; Hofstede, 1980, 2001; Schwartz, 1992; Trompenaars 1993; GLOBE of House *et al.,* 2004). The reader can report to the first part of this thesis (Chapter 2, p. 25-35) for a complete description of these models.

Despite the criticism that Hofstede's (1980; 2001) framework has received in recent years, for instance, with regard to the attitudinal measures used (Tayeb, 1996), the selection of countries studied (Ailon, 2008), the potential cultural biases (Roberts and Boyacigiller, 1984) and anomalies (Trompenaars and Hampden-Turner, 1997), it seems by far to be the most salient approach for evaluating cultural effects (Shivakumar and Nakata, 2001; Steenkamp, 2001). Specifically, it has found ample application as a theoretical framework for guiding cross-cultural comparisons (Randall, 1993; Shane, 1994) and for classifying and explaining the influence of national culture on various research topics (Murphy, 1999). There are three main reasons why Hofstede's model is opt in this particular study.

The first reason why Hofstede's model employed in this thesis is the validity it has received in past literature. Hofstede's (1980, 2001) dimensions of culture have been proven to have predictive relevance in various fields of marketing, such as advertising (De Mooij, 2003),

product innovation (Giarratana and Torres, 2007), new product diffusion (Yeniyurt and Townsend, 2003), retailing (De Mooij and Hofstede, 2002), service marketing (Donthu and Yoo, 1998) and consumer behaviour (Kacen and Leee, 2002). Furthermore, Hofstede's dimensions have been validated against many external measurements, and replications have shown the robustness of this model (Sondergaard, 1994; Murphy 1999, Hofstede, 2001). Lastly, as Hofstede only surveyed employees of one company across different countries, between-company differences are not an issue as with other approaches (Steenkamp, 2001). Considering the vast amount of conceptual and empirical evidence for Hofstede's model, its application seems promising from a conceptual perspective.

Secondly, Hofstede's model is the only model for which the dimensions' values are available for a large number of countries. Even though they do embrace potentially relevant cultural dimensions, other concepts such as those presented by Trompenaars (1993), Hall (1981), GLOBE, (2004), provide measurement values for a smaller number of countries. Thus, opting for Hofstede's model allows this study to include more countries in the analysis and thereby increase the external validity of the results.

The third reason why the study opt for Hofstede's model lies in its methodological advantages. First, despite being comprehensive, Hofstede's framework has the advantage of offering a very parsimonious description of culture. While other conceptualisations have seven or more dimensions, Hofstede's framework is limited to five. This makes it particularly useful in the present study setup, as every additional cultural dimension would increase the number of interaction effects that need to be considered, and thus implies a reduction in the analysis's degrees of freedom (Henseler *et al.,* 2010). Second, Hofstede's model is the only one (with Schwartz) whose dimensions are independent (Henseler *et al.,* 2010). This is important as, when applying regression analysis, the input factors should only be moderately correlated (Mooi and Sarstedt, 2010).

Finally, Hosftede's model is that it corresponds to the level of analysis of our study: the country-level analysis. Steenkamp (2001) points out that Schwartz' items were originally developed to measure value dimensions on an individual level, and conclude that they are therefore less suitable for cross-country comparisons. However, in this study, it is intended to test the impact of culture on own-label brands performance at the country (aggregate cultural) level, not at the individual level. The application of Hofstede's dimensions seems therefore to be the more appropriate and should provide interesting insight about the way culture impacts the performance of own-label brands at a country level.

In sum, to measure culture, this study opts for Hofstede's cultural dimensions and hence an 'etic' approach[5] [i.e. "*etic designates the orientation of outside researchers, who have their own categories by which the subject's world is organised. The analytical descriptive categories of the outside researcher generally are organised with a view to explanation in the broader sense traditionally used in organisational research*" (Morey and Luthans 1984, p. 29)] for three main reasons:

- Empirically, Hofstede's cultural dimensions are the most salient ones and proved to be relevant and robust in numerous marketing applications.

- Practically, Hofstede's is the approach for which data about dimensions' scores are available for the highest number of countries.

- Methodologically, Hofstede's dimensions are independent from each other and present a parsimonious description of culture, which is advantageous when applying multivariate data analysis.

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[5] The term comes from phonetic analysis in linguistics which refers to the development of a general system which takes into account all meaningful sounds in all languages (Brislin, 1976, p16).

- Conceptually, the level of analysis of this study corresponds to the level of analysis for which the Hofstede's model has been developed: the country level analysis.

### 3.3.5 The Necessity to Take Socio-Economic Variables into Account

Although the primary focus of this research is on the influence of national cultural dimensions on own-label brands' performance, this study also control for several key elements related to a country's socioeconomic variables. This is because research shows that an enlarged perspective on contingency theory, with the inclusion of socioeconomic variables, can provide a comprehensive understanding of the factors affecting the structure and functioning of complex organisations (Negandhi, 1983).

Many empirical studies suggest that several socioeconomic elements can be correlated with retail market development or own-label brands performance (Frank *et al.,* 1967; Richardson *et al.,* 1996). Among them this study will focus on: GDP per capita (Cotterill and Putsis, 2000; Steenkamp *et al.,* 2010); government expenditure (Douglas and Craig 2011; Reynolds et al., 1994); and income distribution represented by GINI index (Sebri and Zaccour, 2013; Talukdar *et al.,* 2002). As mentioned earlier these elements are not the focus of the study, but controlling for their effects may allow to better isolate the role of cultural dimensions in the model and to provide a stronger test of the hypotheses. The following section discusses these three socio-economic variables.

### *GDP per Capita*

GDP per capita is defined as the gross domestic product converted to international dollars using purchasing power parity rates and divided by the midyear population of the country (World Bank, 2014). It is considered as an accurate gauge of comparative wealth, as it takes

into account social services and subsistence requirements, which can vary substantially across countries (Craig and Douglas, 2000). GDP per capita provides an overall assessment of a nation's income and thus of its ability to spend money on goods and services (Roth, 1995). According to Ghemawat (2001) the wealth or income of consumers is the most important economic attribute that creates distance between countries, and it has a marked effect on the levels of trade and the types of partners a country trades with. Past research suggests that rich countries engage in relatively more across broader economic activity relative to their economic size than do their poorer counterparts. Most of this activity is with other rich countries, as the positive correlation between GDP per capita and trade flows implies (Ghemawat, 2001).

Regarding the potential link between GDP and retail market development, Spencer and Gomez (2004) hypothesise a positive relationship between a country's GDP per capita and the percentage of small firms in the country. The study found that GDP per capita did predict the prevalence of small firms in a country (Spencer and Gomez 2004). In terms of own-label brands' performance, Steenkamp *et al.,* (2010) employed GDP per capita as a control variable on their cross-country analysis to understand the consumers' willingness to pay a price premium for national brands over own-label brands. Cotterill and Putsis (2000) found that rise in the country's GDP per capita significantly increases (decreases) national brand (own-label brands) share. This may be due to the fact that a rise in the country's GDP per capita increases the average disposable income of consumers who, in turn may be less prone to buy own-label brands.

The above literature provides adequate justification as to the role of GDP as a control variable in the conceptual model.

***Government Expenditure***

Douglas and Craig (2011) emphasise that government expenditures on health, welfare, education and physical infrastructure can substantially impact markets and consumers. In a similar vein, with regard to government spending, Reynolds *et al.,* (1994) show that there are at least two ways governments may affect the retail business. The first one is through local spending on infrastructure (schools, health care, roads, police and fire services, etc.) which may indirectly increase the demand for goods and services provided by the retail firms. The second one is through programmes providing direct assistance to new and small retail firms. Both facts are included when one takes into account government expenses (Reynolds *et al.,* 1994).

Further, according to Kotlar (2011) governments at the federal, state, and local levels may also play a stronger role if consumers and voters push to use legislation, regulation taxation, and incentives to support sustainability and the health and safety of citizens. In this context, Reynolds et al., (1994) highlighted that policies and programmes of governments (international, national, and regional) may influence the retail businesses in several ways:

1. *Encourage conception*. Governments may modify the institutions and regulations that affect the capacity to initiate new retail firms, encouraging individuals to enter into the gestation process.

2. *Facilitate gestation, indirectly*. Governments may use public resources to improve or modify the infrastructure in such a way that it facilitates the gestation process. This would, indirectly, encourage conception.

3. *Facilitate gestation, directly*. Special programmes may identify, inform and train nascent entrepreneurs interested in establishing new firms. These may focus on the

three major activities involved in planning new retail firms: a marketing strategy, assembling resources; and organising the delivery of the goods or services.

4. *Facilitate growth/survival*. Specialised efforts may be made to assist new retail firms following birth. This may take the form of counselling and advice, provision, or access to networks.

The above literature provides adequate justification as to the role of government expenditure as a control variable in the conceptual model.

### *The Gini Index*

The Gini index is a measure of income heterogeneity (Talukdar *et al.,* 2002). It is thus frequently used as a measure for the inequality of income or wealth distribution. Its values range between 0 and 1: a Gini index of 0 corresponds to perfect equality of income; when the Gini index is 1 it corresponds to perfect inequality of income among people.

Income distribution is considered as being likely to influence markets and consumption behaviours within a country. For instance, income threshold models imply that the diffusion curve for new products is determined mostly by the shape of income distribution (Sebri and Zaccour 2013). Assuming that prices decline over time and that income determines reservation prices, one can make the general claim that diffusion curves "*will be flatter in countries in which income is more evenly distributed*" (Russell 1980, p. S73). Talukdat *et al.,* (2002) find that the impact of the Gini index on products' diffusion is significant.

In terms of own-label brands' performance, Glynn and Chen (2009) study indicates that households with higher incomes are less likely to buy own-label brands. Such households have fewer financial constraints and show less price concerns (Ailawadi *et al.,* 2001). This

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finding is consistent with Burton *et al.,* (1998) who show that higher-income families have a less favourable attitude to own-label brands leading to lower purchase intention. Moreover, Sebri and Zaccour (2013) recently tested the relationship between inequality in income distribution and own-label brands' performance on a country level. The authors hypothesise that the own-labels success is positively associated with the Gini index of income inequality; and confirm a positive influence between the Gini index and own-label brands success (Sebri and Zaccour 2013).

The above literature provides adequate justification as to the role of the Gini index as a control variable in the conceptual model.

## 3.4 Conceptual Framework

The previous part defined the main variables, culture, retail market development and own-label brand performance and also described the general relationships between them. In addition, three control variables GDP per capita, GINI index and government expenditure were defined and discussed. The present part develops in greater details of the different hypotheses that propose in this study for each cultural (PDI, IDV, MAS, UAI & LTO) dimension of the model. The proposed conceptual framework representing these hypotheses is illustrated on Figure 3.3, p. 85.

### 3.4.1 Impact of Retail Market Development on Own-Label Brands Performance

Prior section has already developed the hypothesis of a positive impact of retail market development on own-label brands performance (cf. p.59-60). This section will therefore only present a summary of this rationale here. First, own-label brands have been developed by big retailer chains such as supermarkets, hypermarkets and discounters. These are modern store formats compared to more traditional channels such as small independent stores. Therefore, one can expect that the more modern the stores composing a retail market are, the higher the

own-label brands' performance. This is confirmed by Cuneo *et al.,* (2015) who show that these brands are much more prevalent in larger grocery stores such as supermarkets than in small outlets. Therefore, the higher the number of modern distribution channels, the greater the performance of own-label brands. Along the same lines, an increase in the chains of hard discounters (e.g., Aldi and Lidle in Europe) that mainly offer own-label brands, also contributes significantly to the growth of own-label brands (Sebri and Zaccour, 2013).

Second, past research suggests that higher retail market concentration leads to higher own-label brand performance. Retail market concentration gives retailers negotiating power in the channel, greater market power, and allows economies of scale (Rubio and Yague, 2009). These three different aspects of retail market development favours the own-label brands market shares (Dhar and Hoch, 1997; Cotterill *et al.,* 2000; Cuneo *et al.,* 2015). Similarly, rivalry among the most concentrated retailers positively affects own-label brands market share through the application of more competitive prices for the own-label brands and through the improvement of the overall quality of these brands (Corstjens and Lal, 2000). This is logical with the fact that own-label brands have gained important market share in some European countries: Steenkamp and Dekimpe (1997) mention that in smaller European countries like Sweden or the Netherlands, the three largest chains already account for more than 60% of total grocery sales, while this percentage is around 40% for larger European countries such as Great Britain, France and Germany. Based on the discussion above, it is therefore hypothesised that:

*H1: There is a positive relationship between retail market development and own-label brands performance.*

### 3.4.2 The Impact of Power Distance

The power distance dimension can be defined as "t*he extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally*" (Hofstede *et al.,* 2010, p. 61). *Institutions* are the basic elements of society, such as the family, the school, and the community; *organisations* are the places where people work (Hofstede and Hofstede, 2005). According to Hofstede (2001) the norms of high power distance cultures legitimise differences in decision-making power between those who are in high power positions versus those who are in low power positions. In contrast, the norms of low-power distance cultures reduce power differences among people in positions of varying levels of formal decision-making power (Hofstede 2001).

In terms of purchase behaviour, it has been shown that in the high power distance cultures people give more importance to products' brand names than in low-power distance cultures (Robinson 1996; Roth 1995). Moreover, De Mooij and Hofstede (2010) state that in high power distance cultures, everyone has his or her rightful place in a social hierarchy. The rightful place concept is important for understanding the role of global brands (De Mooij and Hofstede, 2011). In high power distance cultures, one's social status must be clear so that others can show proper respect; well-known global brands can help to serve that purpose (De Mooij and Hofstede, 2010). On the other hand, when power distance is low, social brand images will not match the cultural norms because consumers are not motivated by group-related needs (Roth, 1995). Thus, consumers in high power distance countries should tend to prefer global manufacturers' brands rather than standard own-label brands in a greater extent than consumers in low power-distance countries (Kim and Zhang, 2011). Therefore, it is hypothesised that:

*H2a: There is a negative relationship between power distance and own-label brands performance*

Power distance has been commonly found to influence the way decisions are made in societal and organisational structures (Hennart and Larimo 1998). Countries scoring high in terms of power distance tend to develop more centralised and more dependent decision-making within society and organisations than low power distance countries (Erramilli, 1996; Hofstede *et al.,* 2010).

Past research suggests a negative influence of power distance on retail market development. First, low power distance societies may be a better environment for private firms to expand, which should have a positive impact on markets' size. Indeed, decentralised firms develop a more consultative and participative management among organisational members, which engenders open discussion and sharing of ideas between superior and subordinate managerial levels (Ralston *et al.,* 2005). Similarly, Evans *et al.,* (2008) claim that a decentralised organisational structure may facilitate greater learning about different markets and a deeper understanding and awareness of the similarities and differences between the home and foreign markets. In contrast, according to Quester and Conduit (1996) adversaries of centralisation believe that lack of clear cut responsibility at a subsidiary level can be detrimental. If all decisions are made by headquarters, logical thinking and rationality by the local managers will be discouraged.

Second, power distance may have a negative impact on the development of store format modernity of retail market. Indeed, Kandemir and Hult (2005, p. 346) explain that increased centralisation can lead to less communication with middle and lower level of management and discourage situational analysis and comprehensiveness of operations in the organisations, which would lead to less initiatives for innovation. Moreover, senior management in centralised organisations may have a more ethnocentric view of the world and consequently underestimate the differences between markets, which is also a barrier to innovation and modernity (Miller 1987; Evans *et al.,* 2008). Finally, literature also argues that organisation

having centralised decision-making inhibit the adaptation of marketing plans among subordinates (John and Martin 1984). Evans *et al.,* (2008) found that there is a significant negative association between centralisation decision making and retail strategy.

Third, past studies suggest a negative relationship between power distance and retail market development in particular with retail market concentration. Etgar and Rachman-Moore (2011) find that retailers originating from countries characterised by higher power distance are more likely to be specialist (traditional) rather than generalist (modern) retailers. It is therefore expected that firms in high power distance cultures will generate with less concentrated retail markets. It is thus hypothesised that:

*H2b:     There is a negative relationship between power distance and retail market development*

### 3.4.3 The Impact of Individualism

Individualism implies "*a loosely knit social framework in which people are supposed to take care of themselves and of their immediate families only*" (Hofstede 1980, p.45). According to De Mooij and Hofstede (2010) in individualistic cultures, one's identity is in the person. People are 'I'–conscious, and self-actualisation is important. Individualistic cultures are universalistic, assuming their values are valid for the whole world. In collectivistic cultures, people are 'we'–conscious. Their identity is based on the social system to which they belong, and avoiding loss of face is important (De Mooij and Hofstede, 2010).

Previous research suggests a positive relationship between individualism and own-label brand performance. First, individualism is associated with an emphasis on independence and self-reliance (Lalwani *et al.,* 2006), while collectivism is associated with an emphasis on interdependence, belongingness, pursuing common goals with others, and maintaining harmonious relationships (Markus and Kitayama, 1991; Triandis, 1995). Moreover, in

individualistic societies, a person's attitudes and behaviour are regulated largely by individual preferences, whereas in collectivistic societies, attitudes and behaviour are heavily influenced by society's preferences (Triandis, 1989). This may indicate that consumers of collectivist cultures will pay more attention to others' opinions when purchasing a product/brand. This should lead them to reject own-label brands in a greater extent as these brands are not considered as qualitative as manufacturer brands. On the contrary, consumers in individualistic countries are more led by their own interest and their own preferences, they should be more prone to buy lower status products in order to maximise other personal interests such as the cost-saving and convenience that are more easily fulfilled by own-label brands.

Second, this rationale justifying a positive relationship between individualism and own-label consumption is corroborated by results of a number of past studies. Regarding own-label brands' consumption prior research shows that the purchase of own-labels is quite high in individualistic cultures (De Mooij and Hofstede, 2002). Similarly, Shannon and Mandhachitra (2005) and Lupton *et al.,* (2010) studies also confirm that Western individualistic consumers are more prone to buy own-label brands compared to their Eastern counterparts. This may be due to individualistic people are more brand – savvy (Sun *et al.,* 2004).Thus, it hypothesise that:

*H3a: There is a positive relationship between individualism and own-label brands performance.*

Past research indicates that countries with low levels of individualism are less likely to accept international (modern) retail distribution channels (Straughan and Albers-Miller, 1997). Indeed, this cultural behaviour impact on retail market development in particular with modern retailers. In addition, with regards to retail market development process, Khare (2013) shows

that in collectivist societies, small traditional distribution retailers are considered as a part of their social fabric and also perceived them as a part of their social group. More specifically, in collectivistic cultures, traditional retail channels are expected to be preferred to modern retail channels for shopping since trust in the company and personal contacts are important (Goodrich and De Mooij, 2011). In a similar vein, Kim and Jin (2001) reports that less individualist Koreans have not yet established their trust and patronage towards modern distribution (discount stores) channels compared to more individualistic American counterparts. Likewise, the study of Straughan and Albers-Miller (2001) find that loyalty to domestic retailers is negatively influenced by individualism.

Moreover, according to Khare (2013), in collectivistic countries traditional retailers have knowledge about local consumers' preferences and stock products accordingly. This knowledge about consumers is a distinct advantage for them. They can use this information for managing product assortment and handling consumer requests efficiently. This strategic advantage can be used by small traditional retailers in managing their consumer better. A recent study conducted by Nielsen (2010) reports that traditional grocery store numbers in Asia Pacific (collectivistic) countries increased by 1 million in the last decade but the modern store numbers grew only by an average of 35% per annum. Earley and Gibson (1998) therefore urged that collectivist countries are more incline to develop a large number of small traditional organisations is likely while big firms are more successful in individualistic countries. This leads to development of low concentrated retail market where the presence of big modern chains is limited. Based on these arguments, it is expected that the development of retail market of countries with high individualism cultural values are more likely to be more concentrated and composed of modern distribution channels. It is therefore hypothesised that:

***H3b: There is a positive relationship between individualism and retail market development***

**3.4.4 The Impact of Masculinity**

Masculinity refers to the dominant gender patterns in a society (Swaidan *et al.,* 2008). More specifically, '*the dominant values in a masculine society are achievement and success; the dominant values in a feminine society are caring for others and quality of life*' (De Mooij and Hofstede, 2010). Hofstede and Bond (1988) describe masculine as "assertive pole" and feminine as the "nurturing pole". In feminine countries, women and men have the same modest, caring values, whereas in masculine countries, women are somewhat assertive and competitive, but not as much as the men, so that these countries show a gap between men's values and women's values (Hofstede and McCrae 2004). In masculine cultures there is large role differentiation between males and females, in feminine cultures there is small role differentiation (De Mooij, 2000). Van Everdingen and Waarts (2003) distinguish masculine cultures as ambition, competition, material values and the focus on performance. In contrast, feminine cultures are characterised by values like equality, solidarity, social relationships and managers' use of institution and seeking consensus. Thus, the fundamental issue addressed by this dimension is the way in which a society allocates social (as opposed to biological) roles to the sexes (Hofstede, 1984).

The impact of masculinity on own-label brands performance has not been empirically examined, yet indirect evidence allows us to expect a negative one. De Mooij (2000) asserts that in masculine countries performance and achievement are important. In a consumption context, these two values are often linked to manufacturer brands, considered as more reliable and performing, rather than to own-label brands considered as a cheaper solution and a trade-off between price and performance. This is therefore not surprising that cultures scoring high on the masculinity dimension mention brand names more frequently in their descriptions of the idea of 'good life' (Zinkhan and Prenshaw, 1994). This is because achievement must be demonstrated, and therefore status brands or products such as jewellery are important to show

one's success (De Mooij and Hofstede, 2010). Based on this discussion, it is assumed that cultures scoring high on masculinity must be more attracted by manufacturer brands rather than by of own-label brands. Thus, the following hypothesis is proposed:

***H4a: There is a negative relationship between masculinity and own-label brands performance.***

Further, there are very few existing studies attempting to study the relationship between masculinity and retail market development. Among these few studies, Goldman and Hino (2005) conducted a study at the organisational level in order to diagnose the barriers of market share growth of modern retail stores. In this research, they attempt to understand the relationship between a country's level of masculinity and people shopping behaviour across different retail stores (supermarkets vs. traditional). The authors results show that some cultural norms dictate that women should not venture unaccompanied out of the "safe" radius around the home and should only go shopping in the neighbourhood (traditional) stores, not in the more distant modern retailers (Goldman and Hino, 2005). This leads to a higher patronage of small, traditional and independent stores rather than big supermarket chains. It is therefore assumed that a country that has a masculine culture leads to less developed retail market, which in turn will negatively impacts on own-label brands performance. It is therefore hypothesised that:

***H4b: There is a negative relationship between masculinity and retail market development***

### 3.4.5 The Impact of Uncertainty Avoidance

Uncertainty avoidance is defined as "*the extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured situations*" (Hofstede, 2001 p.19). Unstructured situations are considered as novel, unknown, surprising, or different from usual (Hofstede and Bond, 1988).Strong uncertainty avoidance societies maintain rigid codes of

belief and behaviour whereas weak uncertainty avoidance societies maintain a more relaxed atmosphere in which practice counts more than principles (Hofstede, 1984). People of high uncertainty avoidance are less open to change and innovation than people of low uncertainty avoidance cultures (De Mooij and Hofstede, 2010).

Past research suggests a negative relationship between uncertainty avoidance and own-label brand performance. According to Hofstede (1984), cultures that are characterised by a high level of uncertainty avoidance tend to see uncertain, ambiguous or risky situations as threatening and to be avoided at all costs. On the contrary, low uncertainty avoidance cultures consider risk as being a natural component of life that can often produce opportunity. In another words, cultures high in uncertainty avoidance tend to be more risk-averse (Bontempo *et al.,* 1997). Risk aversion affects consumers' decision making in various ways (e.g., Rao and Bergen 1992). Risk-averse consumers feel threatened by ambiguous and uncertain product assessments (Erdem *et al.,* 2006). Thus, high risk-averse consumers tend to expect more losses associated with the purchase of new products and non-established brands than low risk-averse consumers. Accordingly, risk-averse consumers tend to stay with the well-established brands so as to avoid possible financial loss of trying unknown brands (Bao *et al.,* 2003). Indeed, the performance of well-established brands is less uncertain and unknown than that of the non-established ones (Steenkamp *et al.,* 1999). It has also been shown that risk-averse consumers reduce risk by choosing higher-priced brands, especially in markets where objective quality information is lacking and where intrinsic product information is less credible (Zhou *et al.,* 2002).

Members of Eastern cultures are characterised as exhibiting higher uncertainty avoidance than members of individualistic cultures (Moss and Vinten, 2001). Because of uncertainty avoidance social aspect of shopping and interaction with group members (Schutte and Ciarlante, 1998), risk aversion likely applies to grocery shopping in terms of preference for

branded products as opposed to lowest price (Shannon and Mandhachitara 2008). Shannon and Mandhachitara (2005) report that Americans tend to exhibit lower risk-aversion scores than Thai shoppers in terms of own-labels' choice. Further, De Mooij and Hofstede (2002) state that shoppers from Eastern cultures are more likely to prefer national or global brands to own-labels due to their desire to avoid risk. On this basis, it is hypothesised that:

***H5a: There is a negative relationship between uncertainty avoidance and own-label brands performance.***

Similarly, past research suggests a negative relationship between high uncertainty avoidance and retail market development. First, Hofstede (1980, 1991) indicate that high UAI countries are inherently more resistant to changes and differences. Moreover, Straughan and Albers-Miller (2001) explain that foreign (modern) retailers are more likely to be perceived as different or unusual and that, for this reason, higher levels of uncertainty avoidance are expected to lead to group-level preferences for domestic (traditional) retailers. Second, Straughan and Albers-Miller (2001) also assert that if the country has not has a great deal of exposure to foreign companies and foreign products, non-domestic i.e. modern retailers will be considered as even more "foreign" and therefore would be perceived as less predictable, which is a negative attribute for uncertainty avoidant cultures. On the opposite, local traditional stores, owned and operated by local merchants, will seem more commonplace and therefore more predictable and less risky (Straughan and Albers-Miller, 2001).  Additionally, Hofstede (1980, 1991) also note that high UAI cultures are often much more nationalistic and ethnocentric and are therefore presumably  less open to foreign, and potentially more modern retailers and more likely to favour local retailers (Straughan and Albers-Miller, 2001).

Finally, according to Achrol and Stern (1988, p. 39) uncertainty avoidance culture would be likely to engender little market concentration. Indeed, when there is very little concentration,

uncertainty is low because the actions of any individual firm are inconsequential on the other firms. As concentration increases, approaching oligopolistic market structure, firms have increasing impact on each other with resulting high uncertainty. Based on the above discussion the following hypothesis is proposed:

***H5b: There is a negative relationship between uncertainty avoidance and retail market development***

### 3.4.6 The Impact of Long-Term Orientation

Long-term orientation is defined as *"the extent to which a society exhibits a pragmatic future-oriented perspective rather than a conventional historic or short-term perspective"* (De Mooij and Hofstede, 2002, p.64). In sort, long-term orientation implies investment in the future (De Mooij and Hofstede, 2010). The future focused, long-term aspects of this dimension encompass persistence, thrift, and perseverance toward slow results (Dwyer *et al.,* 2005). By contrast, short-term orientation stands for "*the fostering of virtues related to the past and present, in particular, respect for tradition, preservation of 'face' and fulfilling social obligations*" (Hofstede, 2001, p.359).

In terms of consumption behaviour, short-term oriented individuals' purchase decisions are made on the basis of more immediate desires, with little contemplation of future consequences (Bearden *et al.,* 2006). Because of these pressures, individuals in these cultures are motivated to adopt new products that rapidly enhance their status within their society (Yalcinkaya, 2008). On the contrary, according to Bearden *et al.,* (2006), long-term orientation generates higher levels of consumer frugality and lower levels of compulsive buying. Frugality has been associated with delayed economic gratification (Bearden *et al.,*2006). This association suggests that frugal people value future outcomes more than present consumption as a means to achieve long-term goals (Bearden *et al.,* 2006).

Compulsive buying is suggestive of limited thought (i.e., conscious planning) prior to purchase decisions (Faber and O'Guinn 1992). The higher level of frugality and lower levels of compulsive buying deter from purchasing a new, relatively untested product (Dwyer *et al.,* 2005). New products with little or no past history are likely to be viewed with caution from individuals in long-term orientation since these cultures emphasise saving and are more comfortable with a slow adaptation of novel concepts (Yalcinkaya, 2008). Thus, it is anticipated that consumers from long-term orientation countries tend to prefer well-known (i.e., national or global) brands because they may be interested in forming a long-term relationship with these brands (De Mooij and Hofstede, 2002). It is therefore hypothesised that:

***H6a: There is a negative relationship between long-term orientation and own-label brands performance.***

Past research suggests a negative relationship between long-term orientation and retail market development. Nakata and Sivakumar (1996) describe western countries as short-term oriented cultures and non-western countries as typical long-term oriented cultures. Consumers in short-term oriented (i.e., Western) cultures tend to accept novel ideas more rapidly and to value innovativeness at a higher extent compared to consumers in long-term oriented (i.e., non-Western) cultures (Eisingerich and Rubera, 2010). This reasoning suggests that retail market development is facilitated in short-term oriented cultures compared to long-term oriented cultures (Rubera and Kirca, 2012).

In addition, in terms of the retail market development, and more specifically regarding the development of retail outlets, recent studies suggest that long-term orientation may be the major predictor of consumers' preference for shopping from small traditional retail outlets (Khare, 2013).As a result it is less likely that modern retail stores easily develop in long-term

orientation countries. This is due to the fact that long-term orientation is a value based on tradition and that it therefore takes longer for foreign (modern) businesses to embed themselves into such a society (Hingley *et al.,* 2009). From the discussion above, it is hypothesised that:

***H6b: There is a negative relationship between long-term orientation and retail market development***

**Figure 3. 3: Impact of Culture on Own-Label Brands Performance**
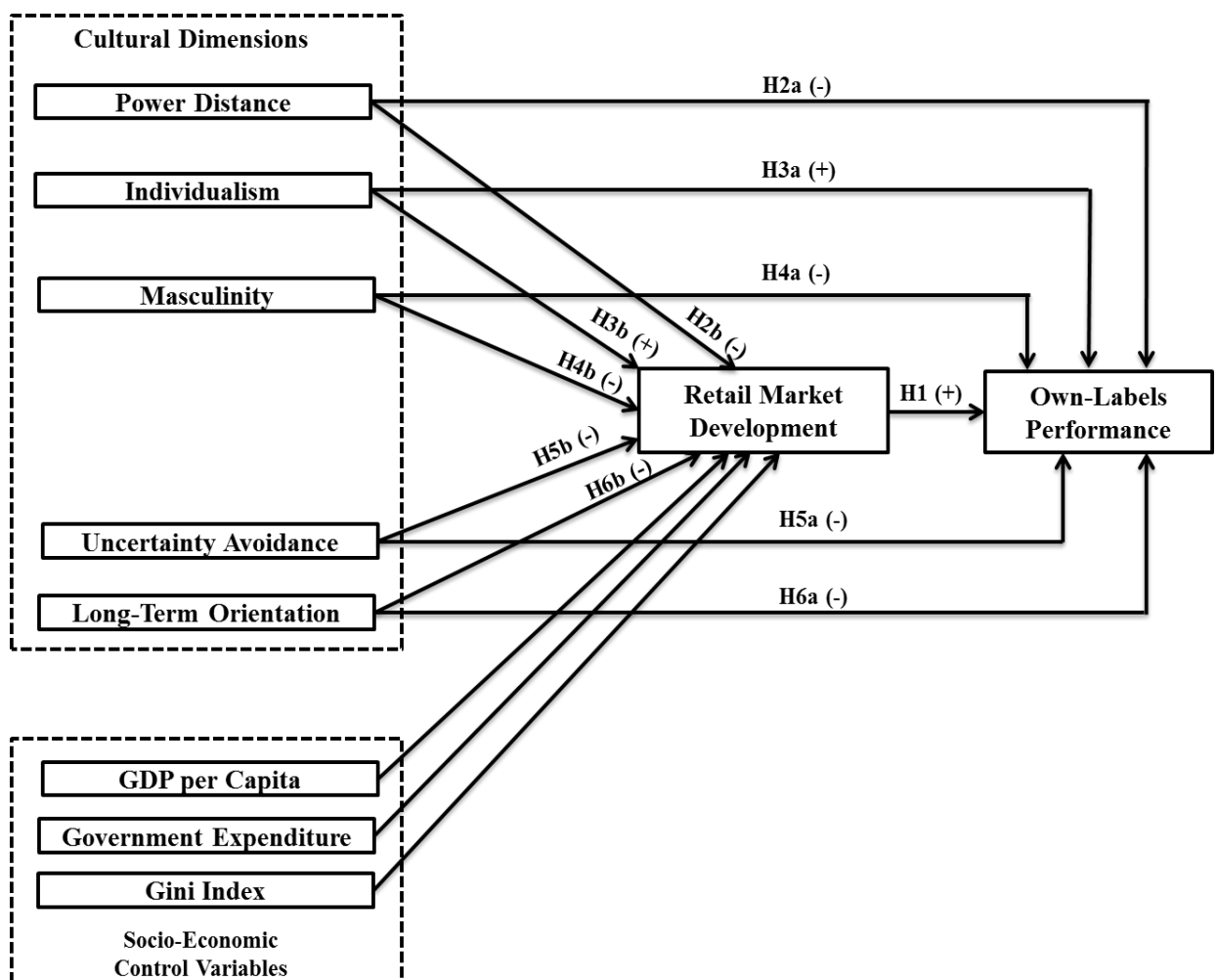


Next, Table 3.2 presents the summary of the hypotheses

**Table 3. 2: Hypothesis Summary**

| Variable | Hypothesis | Hypothesis Statement |
|---|---|---|
| Retail Market Development | H1 | There is a positive relationship between retail market development and the own-labels performance. |
| Power Distance | H2a | There is a negative relationship between power distance and own-labels performance |
| | H2b | There is a negative relationship between power distance and retail market development |
| Individualism | H3a | There is a positive relationship between individualism and own-labels performance |
| | H3b | There is a positive relationship between individualism and retail market development |
| Masculinity | H4a | There is a negative relationship between masculinity and own-labels performance |
| | H4b | There is a negative relationship between masculinity and retail market structure |
| Uncertainty Avoidance | H5a | There is a negative relationship between uncertainty avoidance and own-labels performance |
| | H5b | There is a negative relationship between uncertainty avoidance and retail market development. |
| Long-Term Orientation | H6a | There is a negative relationship between long-term orientation and own-labels performance |
| | H6b | There is a negative relationship between long-term orientation and retail market development. |

## 3.5 Summary Remarks

This chapter has discussed the background of the study and highlighted several key research gaps that the current study needs to be addressed. Then, a general conceptual framework of this study was discussed introducing contingency theory. This justified the use of the different variables composing the conceptual model and the general relationships between the constructs. Further, in greater details the different hypotheses for each cultural (PDI, IDV, MAS, UAI & LTO) dimensions of the model has been discussed under the detailed theoretical model. Essentially, this chapter has formulated a conceptual model which can now be empirically tested.

The process of beginning this empirical verification is now discussed in chapter four, where the methodology of the study is introduced, including the research design, the actual process of the building the dataset.

# Chapter 4

# Research Methodology – 1:

# Building and Description of the Dataset

## 4.1 Introduction

The objective of this chapter is to explain the building procedure of the dataset used in this study. A dataset was built by gathering cross-sectional secondary information about 1) grocery retail market development, 2) own-label brands' performance, 3) scores on the Hofstede's cultural dimensions for a large number of countries and 4) some socioeconomic variables: GDP per capita, Government expenditure and GINI index. In a following chapter, this dataset will be used to investigate the impact of culture on own-label brands' performance.

This chapter is divided into three major parts. **Section 4.2** justifies the methodological choices made, such as the preference for a cross-sectional over a longitudinal research design and the use of secondary data. **Section 4.3**, present the original sources that were used to find the information needed for the research and describe how, from this information, the researcher can computed *independent variables*: cultural dimensions (power distance, individualism, masculinity and uncertainty avoidance) and retail market development, *dependent variable* own-label brands performance and *control variables*: GDP per capita, Gini index and Government Expenditure on a cross-sectional dataset. **Section 4.4**, present descriptive results (e.g., mean, standard deviation, correlations) of the constructs. Figure 4.1 provides a visual representation of the organisation of this chapter.

**Figure 4. 1: Organisation of Chapter 4**

| **4.2 Methodological Choices** |
|---|
| Cross-sectional versus longitudinal design<br>Secondary versus primary data |

| **4.3 Dataset Building** |
|---|
| Choice of secondary sources<br>Development of variables' operational definition<br>Description of equations to compute variables |

| **4.4 Descriptive Analysis** |
|---|
| Visual description of variables<br>Mean and variance computation<br>Correlation analysis |
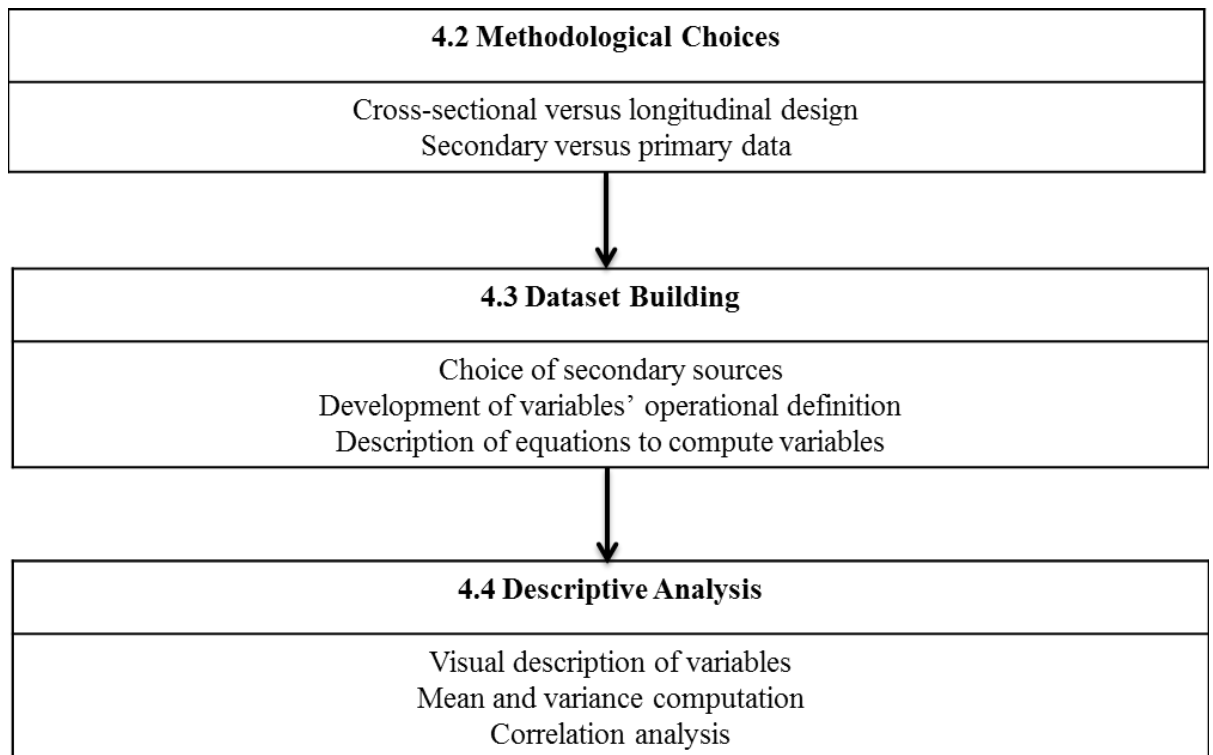
## 4.2 Methodological Choice

This section discusses the reasons for adopting a cross-sectional research design and justifies the use of secondary over primary data.

### 4.2.1 The Use of Cross-Sectional Research Design

Research design is defined as "*a framework of blueprint for conducting the research project. It specifies the details of the procedures necessary for obtaining the information needed to structure and/or solve marketing research problems*" (Malhotra 2007, p. 78). There is never a single, perfect research design that is the best for any specific research project or even for a specific type of research task (Malhotra and Birks, 2000). This does not mean however that the researcher faces chaos and confusion (Zikmund, 2003). But, Sekaran (2000) insists on the fact that the researcher has to consider several alternative methods to solve a problem. In this

context, the conceptual framework described in the previous chapter linking cultural dimensions to own-label brands' performance is the research "problem".

Two alternative types of research design (i.e. longitudinal and cross-sectional) could have been used to test this conceptual framework. A longitudinal design would have had the advantage of tracking the development of the retail market and the performance of own-label brands over time. However, this thesis has opted for a cross-sectional design for two main reasons. First, it would have been very difficult to study the evolution of the cultural dimensions over time as, by definition, these dimensions remain stable over very long periods of time (Hofstede, 2001). Here, a cross-sectional research design seems more appropriate because it provides a snapshot of the variables of interest at a single point in time (Iacobucci and Churchill, 2010). Second, longitudinal research designs "*demand additional expenditures in terms of time and money. These expenses are often prohibitive for academic researchers faced with limited budgets and marketing practitioners faced with limited time*" (Rindfleisch *et al.,* 2008, p.262). In contrast, a cross-sectional research design allows to test the hypotheses, and it is cheaper, less time consuming, and easier to administer than a longitudinal research design. Unsurprisingly, the majority of studies that have investigated the relationship between culture and own-label brands' performance have used cross-sectional research designs. Rindfleisch *et al.,* (2008) note that of 178 survey based articles in the *Journal of Marketing* and the *Journal of Marketing Research*, 94% were cross-sectional in nature. Additionally, as financial resources and time were limited, a cross-sectional research design was considered appropriate to test the conceptual framework.

### 4.2.2 The Use of Secondary Data in Marketing Research

There are essentially two different approaches to perform a cross-cultural analysis: those utilising primary data, and those using secondary information sources (Yeniyurt and Townsend, 2003). Secondary data is defined as data that has been collected from respondents

(individual or organisations) for purposes other than the research situations at hand (Lehmann, 1989; Parasuraman, 1986). Typically, prior cross-cultural studies used primary data collection, using random samples of consumers / firms from two different countries to perform mean and variance tests in order to demonstrate the similarities and differences in consumption of own-label brands (e.g., Shannon and Mandhachitra, 2005). This approach has been criticised for not being adequate when studying cross-cultural differences since factors other than culture, such as economic and demographic differences, may cause observed discrepancies in behaviour (e.g., Katona *et al.,* 1973; Clark, 1990; Dawar and Parker, 1994). In order to overcome these criticisms, other studies have used secondary data to study cross-cultural differences (e.g., De Mooij, 2000; Yeniyurt and Townsend, 2003).

Marketing researchers have two main reasons to value the information gained from utilising secondary data. First, secondary data, in general, represents "real" decisions that have been made by "real" decision-makers in "real" environments (Winer, 1999). According to Houston, (2004) as compared to laboratory or survey data collection methods, secondary data are collected in less obtrusive manners. For example, financial data are provided to the market in accordance with Securities and Exchange Commission (SEC) guidelines. Any research use is purely incidental to the main purpose for the reported data (Houston, 2004). Therefore, secondary data are less subjected to biases and ambiguity in measurement because they are normally collected through non-obtrusive approaches that do not interfere with the sources employed, while maintaining these sources independent from the research objectives (Rabionvich and Cheon, 2011). In the same way, secondary data are removed from any goals and preconceptions among those who initially collected the data that could skew the objectivity of the data collection process (Rabionvich and Cheon, 2011).

Second, collecting secondary data generally requires fewer resources than those involved in other methodologies (Houston, 2004). Indeed, when using secondary data, researchers bypass the stages of instrument creation and primary data collection. Drawing data from existing sources will, in general, save the researcher time and costs.

Third, the use of secondary data can have important advantages in terms of data analysis. Secondary data are available in greater quantity. By having access to greater volumes of data, researchers will benefit by being able to carry out analyses with higher levels of statistical power. Moreover, as secondary data are generally publically available, it gives scholars the opportunity to carry out replication studies to validate or fine tune any initial findings that have been obtained from the data. In sum, unique advantages of secondary data collection are illustrated in Table 4.1:

**Table 4. 1: Advantages of Secondary Data Methodology**

| Research Step | Advantages |
|---|---|
| Data source and costs to compile | - Relatively large amounts of data available<br>- Relatively low amounts of resources necessary for data collection |
| Data collection and integrity | - Limited chances to skew the data collection process based on researchers' perception and bias |
| Data analysis and validation | - Higher internal validity of studies due to measurements and statistical inferences constructed by the third party and derived from less biased database<br>- Greater opportunity for replication when data is publically available |

Source: Rabionvich and Cheon (2011, p. 304)

Analysing the advantages of secondary data this study therefore utilise secondary data in order to understand the impact of culture on own-label brands performance. Next, the presentation of the secondary databases will be described.

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**4.3 Development of the Dataset**

**4.3.1 Presentation of the Secondary Databases**

Two different secondary databases were used to build the dataset of this thesis. The first one is the Euromonitor and the second one is the international bestseller textbook authored by Hofstede *et al.,* (2010) and entitled: *Cultures and Organizations Software of the Mind: Intercultural Cooperation and Its Importance for Survival*, 3rd edition. The following section briefly presents the two databases.

*Euromonitor International*

Figure 4.2 present the official website of Euromonitor ([www.euromonitor.com](www.euromonitor.com)). Euromonitor International was established in 1972. It is an online database that provides statistics, analysis, reports, surveys and breaking news for 27 industries (from fast moving consumer goods and services) in 210 countries all around the world. It makes available historic data from 1997 and forecasts through 2020. The available pieces of information are numerous. The database analyses markets and firms using market performance, market size, company and brand shares and profiles of leading companies and brands. It also provides data and analysis on consumer lifestyles, population trends, and socioeconomic analysis for every country, lifestyle and consumer type down to the city level. Moreover, it offers timely commentary on factors influencing the global, regional and local business environment. Finally it makes available some surveys exploring consumer opinions, attitudes and behaviours.

**Figure 4. 2: Official Website of Euromonitor**
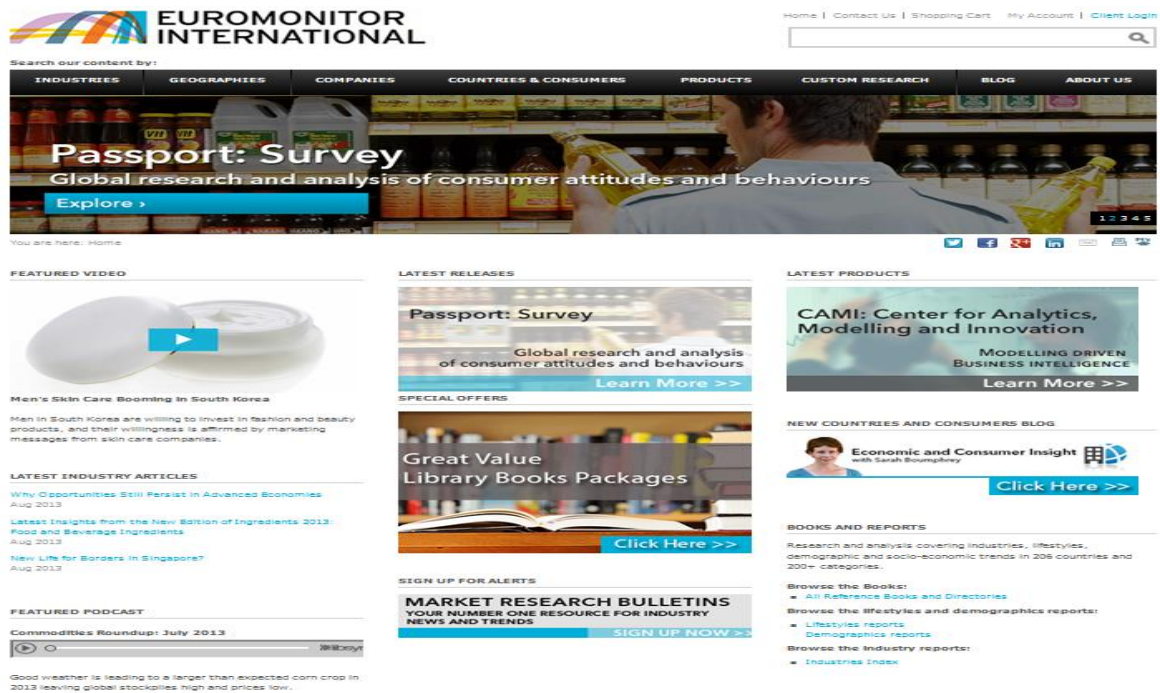


Source: Euromonitor (2013) web site (c.f. http://www.euromonitor.com)

*Hofstede et al., (2010) text book:*

Figure 4.3 presents the international bestseller cross-culture text book named "*Cultures and Organizations: Software of the Mind: Intercultural Cooperation and Its Importance for Survival*", 3rd edition, authored by Professor Greet Hofstede in 2010. The co-authors of this book are Gert Jan Hofstede and Michael Minkov. The key objective of this text book is to offer high quality education in the field of culture and management based on academic research and practical experience. The main pieces of information are the research outcomes of studies using the Hofstede's model such as the scores of 76 countries on the first four dimensions: power distance (PDI), individualism (IDV), masculinity (MAS) & uncertainty avoidance (UAI) and the scores of 93 countries on the fifth and sixth cultural dimensions: long-term orientation (LTO) and indulgence(IVR) of the Hofstede's model. This is the only model for which the dimensions' score are available for large number of countries.

**Figure 4. 3: Hofstede et al., Text Book**
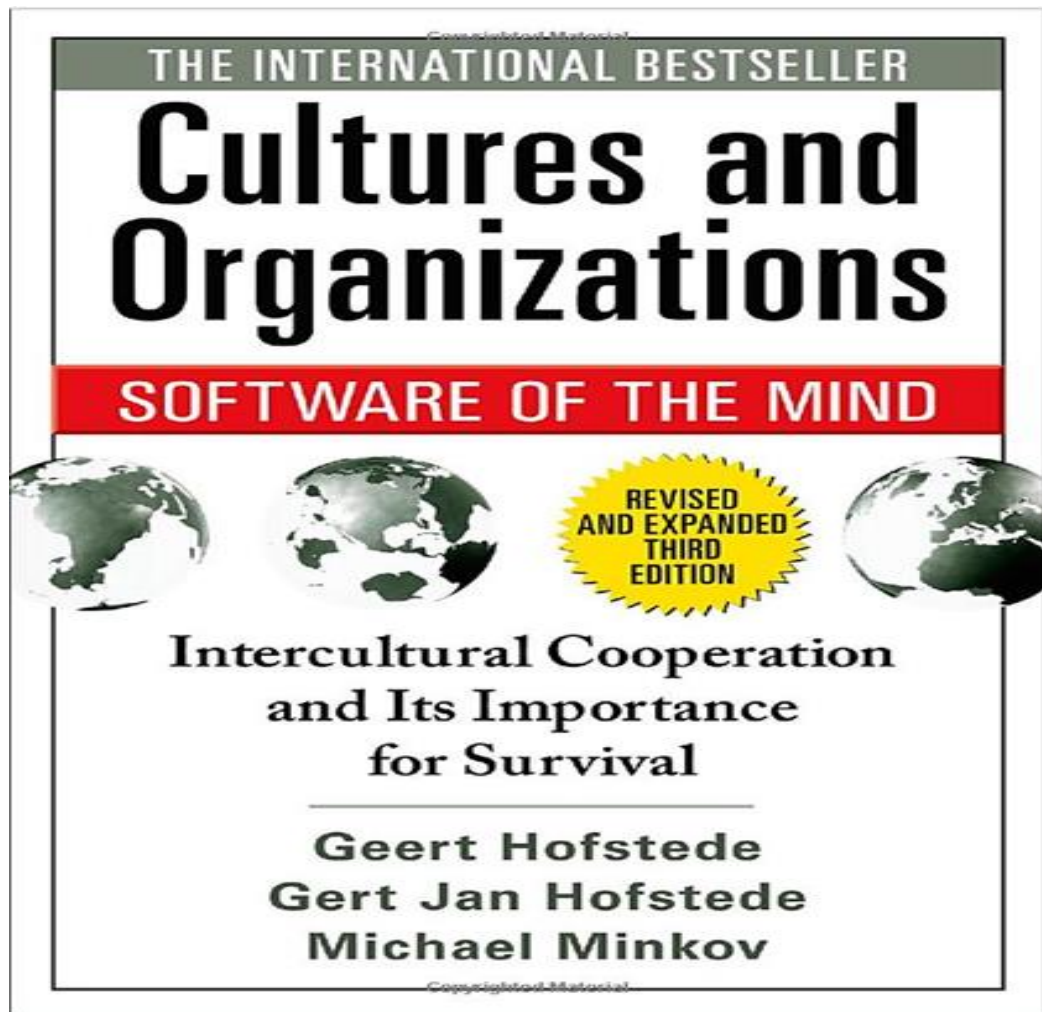


### 4.3.2 The Cultural Dimensions

As previously explained, the thesis uses the **Hofstede's Cultural Model** to depict national culture, partly because it is the only model for which the scores of the different dimensions are available for a large number of countries. In this model, national culture is depicted along four dimensions: PDI, IDV, MAS, UAI and LTO. A score is allocated to each dimension for each country. The data source of the five cultural dimensions is Hofstede *et al.,* (2010) recent text book that lists the absolute scored values for the five National cultural dimensions in different countries (cf. the list of these countries in Appendix 1). The following section discusses how scores are calculated for each of the five dimensions according to Hofstede *et al.,* (2010).

*Power Distance (PDI Index)*

Hofstede *et al.,* (2010, p.56) explain that the PDI scores have been calculated on the basis of the country's mean scores for the following three items:

- How frequently, in your experience, does the following problem occur: employees being afraid to express disagreement with their managers? (1-5 scale from "very frequently" to "very seldom").

- Subordinates' perception of the boss's actual decision-making style (i.e., autocratic style or a paternalistic style).

- Subordinates' preference for their boss's decision-making style (i.e., autocratic or a paternalistic style).

Country PDI scores are shown in Appendix 7. For fifty-seven of the countries the scores were calculated directly from the IBM data set[6]. The remaining cases were calculated from replications or based on informed estimates. Scores represent relative, not absolute, positions of countries: they are measures of differences only. Hofstede *et al.,* found the same differences in population outside IBM (Hofstede *et al.,* 2010, p.56).

*Individualism Index*

The IDV index was derived from survey questions about employees' work goals (Hofstede *et al.,* 2010, p.92). People were asked: "Try to think of those factors that would be important to you in an ideal job; disregard the extent to which they are contained in your present job. How important is it to you to…." followed by fourteen items, each to be scored on a scale from 1 (of utmost important to me) to 5 (of very little or no importance). Answer patterns reflected two underlying dimensions: *individualism/collectivism* and *masculinity/femininity.* Work goals associated with individualism/collectivism were "personal time", "freedom to approach

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[6] Scores on power distance for fifty-seven countries have been calculated from the answers by IBM employees in the same kind of positions on the same survey questions.

the job", "challenge at work", "use of skills", "physical working conditions", "training opportunities". Hofstede *et al.,* (2010) emphasised that obviously, these items presented do not totally cover the distinction between individualism and collectivism in a society. They only represent the issues in the IBM research that relate to the distinction. The correlations of the *"IBM individualism country scores with non-IBM data about other characteristics of societies confirm (validate) the claim that this dimension from the IBM data does indeed measure individualism"* (Hofstede *et al.,* 2010, p.93). The IDV scores are shown in Appendix 7.

*Masculinity Index*

As explained above**,** *masculinity / femininity* is the second dimension measured through work goal items. This dimension was measured using the following work goal items: "earnings", "recognition", "advancement", "challenge", relationship with managers", "cooperation with co-workers", "living area with family" and "employment security with company". Hofstede *et al.,* (2010) explain that the decisive reason for labelling the second work goals dimension masculinity versus femininity is that this dimension is the only one on which the mean and the women among the IBM employees scored consistently differently. Neither PDI nor IDV nor UAI showed a systematic difference in answers between men and women. The MAS scores are shown in Appendix 7.

*Uncertainty Avoidance Index*

Uncertainty Avoidance (UA) is measured with the following items: "job stress", "Agreement with the statement 'Company rules should not be broken'", "Intent to stay with the company for a long-term career". Hofstede *et al.,* (2010) assumes that all three items are expressions of the level of anxiety that exists in a particular society in the face of an uncertain future. This

level of anxiety forms part of the shared mental programming of people in that society – in the family, at school, and in adult life. Because of this anxiety level, a relatively larger share of individuals will feel nervous or tense at work (question 1). The idea of breaking a company rule – for whatever good reason – is rejected by more people (question 2), because it introduces ambiguity: what if all employees would start doing as they pleased? Finally, changing employers is less popular in such a country (question 3), for it means venturing into the unknown. The UAI scores are listed in Appendix 7.

*Long-Term Orientation Index*

The long-versus short-term orientation was measured through items such as the following: "Thrifts as desirable trait for children", "National pride", "Importance of service to others". The three items were mutually correlated. Conceptually, they measure the importance of tradition as well as perseverance as a desirable trait for children (Hofstede *et al.,* 2010). The LTO scores are listed in Appendix 7.

## 4.3.3 Retail Market Development

To represent the retail market development, this study exported data from the Euromonitor database the amount of sales (SA) in monetary value realised by the entire grocery retail market. In the Euromonitor database, SA is expressed in domestic currencies. These currencies are of course different for (almost) each country. Therefore, to allow a comparison of SA across countries, we find a way to convert it into a similar single unity for all countries. However, just converting SA for all countries into the same currency (for instance US$) would not allow a reliable comparison. Indeed, purchasing powers are different across countries and $1-worth of grocery products does not represent the same quantity everywhere.

To solve this problem, this study chose to express SA of each channel of each country into US dollars (US$) using Purchasing Power Parity (PPP) method. Indeed, unlike the ordinary average exchange rate method, the PPP conversion allows us to obtain a relevant comparison of consumption level across countries by converting each domestic currency into US dollars by applying a specific factor. "*[This] factor is the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as [one] U.S. dollar would buy in the United States*" (World Bank Website). The author found the PPP conversion indexes for GDP in the World Bank website (c.f. http://data.worldbank.org) and call Parity Sales Amount (PSA) this corrected version of SA. Equation 1 represents the way we computed this value.

$$PSA_j = SA_j \times PPPI_j \qquad (1)$$

where $SA_j$ denotes the Sales Amount of country j, $PSA_j$ denotes the Parity SalesAmount of country j, and $PPPI_j$ denotes the PPP Index of country j.

However, it is meaningless to compare the absolute level of sales in grocery retailers across different countries. Indeed, some countries are huge with a very important population (such as China for instance), while others are much smaller with a limited population (such as Luxembourg). Comparing these countries on absolute sales values would give a totally biased idea of the respective importance of the size of the retail sector in each country. For this reason, the author computed the size of the market per inhabitant in order to have an idea of the relative size of the market for each inhabitant of all countries of the database The information regarding the population size of each country has been found in the "population list" available in the Euromonitor. Equation 2 describes the way we computed this value.

$$Retail\ Market\ Development_j = \frac{PSA_j}{INHAB_j} \qquad (2)$$

where, $PSA_j$ still denotes the Parity Sales Amount of country j, $INHAB_j$ denotes the number of inhabitants of country j.

### 4.3.4 Own-Labels Performance

To study own-label brand performance, the thesis had to select a product category corresponding to the type of retailers that are using to operationalise the retail market, which is grocery retailing. Therefore, this study chose the main category sold in grocery retailing stores: the "packaged food" category. The study focused on the packaged food category for two reasons: first own-label brands have emerged as fierce competitors of national brand sin this category (Lamey *et al.,* 2012). Second, packaged food category is the only industry in which information regarding own-label market shares is systematically collected in different countries (Deleersnyder *et al.,* 2009). The **"Packaged Food"** category includes different sub-categories: *Bakery, Canned/Preserved Food, Chilled Processed Food, Dried Processed Food, Frozen Processed Food*, *Ice-cream*, *Noodles*, *Oils and Fats*, *Pasta, Ready Meals, Sauces, Dressings and Condiments*, *Snacks Bars*, *Soup*, *Spreads*, *Sweet and Savoury Snacks.* For a precise description of each sub-category of the packaged food category, please report to Appendix 2.

Information regarding the sales in this category also comes from the **Euromonitor *Passport GMID*** database that provides market shares of all the brands competing on the domestic market of packaged food in each country available in the database. This information is localised under the "Industry/Consumer Products" category. Additionally, to own-label brands, it includes a category **"*private label*"** that represents the sum of the market shares of all the own-label brands sold in the different outlets of the country for this specific category. Equation 3 describes the way we take own label brand performance into account.

$$\text{OLB Perf}_j = \text{MS OL}_j \tag{3}$$

where OLB Perf$_j$ denotes the own-label brand performance in the packaged food category in country j and MS OL$_j$ denotes the cumulative market share of all the own-label brands sold in the country j for the packaged food category.

## 4.3.5 Control (Socioeconomic) Variables

In the data set of this study three elements GDP per capita, government expenditure and Gini index represent socioeconomic variables. This study operationalise the socioeconomic as control variables. Next, the data collection procedure of these three control variables will be discussed:

## 4.3.5.1 GDP per capita

From the Euromonitor database, this thesis extracted information regarding gross domestic product (GDP) in value for the 65 countries of our dataset. All the GDPs were already expressed in US\$ using the PPP Index method. However, similarly as for retail market development, it is meaningless to compare the absolute value of GDP across different countries. Indeed, some countries are huge with a very important population (such as China for instance), while others are much smaller with a limited population (such as Luxembourg). Comparing these countries on absolute values would give a totally biased idea of the respective importance of GDP in each country. For this reason, this study computed the GDP per inhabitant in order to have an idea of the relative GDP of the market for each inhabitant of all countries of the database. As for the Retail Market Development variable, the information regarding the population size of each country has been found in the "population list" available in the Euromonitor. Equation 4 describes the way we computed this value.

$$GDP \ per \ capita_j = \frac{GDP_j}{INHAB_j} \tag{4}$$

where $GDP_j$ denotes the gross domestic product of country j, $INHAB_j$ denotes the number of inhabitants of country j.

**4.3.5.2 Government Expenditure**

To depict government expenditure, this thesis extracted information regarding the expenditure of the government (in value) for each of the 65 countries of our dataset. For the same reason as for Retail Market Development and GDP, these expenditures are expressed in PPP US$ and computed the government expenditure per inhabitant in order to have an idea of the relative government expenditure for each inhabitant of all countries of the database The information regarding the population size of each country has been found in the "population list" available in the Euromonitor. Equation 5 describes the way we computed this value.

$$GovernmentExpenditurepercapita_j = \frac{GovernementExpenditure_j}{INHAB_j} \qquad (5)$$

where, $Government\ Expenditure_j$ denotes the expenditure of the government of country j, $INHAB_j$ denotes the number of inhabitants of country j.

**4.3.5.3 Gini Index**

The Gini index is a measure of income heterogeneity (Talukdar *et al.,* 2002). In particular, it is a measure for the inequality of income or wealth distribution. To capture the income inequality of a country we employed the Gini index. The procedures of calculation of Gini index are as follows:

$$Gini = \frac{A}{A+B} \qquad (6)$$

where, if A = 0, it means the Line of Equality. In particular, if Gini index is 0, it means there is "perfect" distribution of income (everyone earns the same amount). If A is a very large area (making B very small), then the Gini index is large (almost 1) and it means there is very uneven distribution of income.

A Gini index of 0% represents a perfect equality within the population in terms of income redistribution, while an index of 100% implies the highest possible inequality. In the dataset,

countries with a high Gini index are more likely to become unstable due to poverty. The data source of Gini index of 65 countries is Euromonitor.

## 4.3.6 Recapitulation

Figure 4.4 provides a visual representation of the process used to build the dataset used in this study. It recapitulates the different steps: the methodological choices made to tackle the research question, the choice of the original sources used to gather information about our phenomenon of interest, and the math equations developed to compute the different variables of the dataset.

**Figure 4. 4: Recapitulation of the Dataset Building Process**
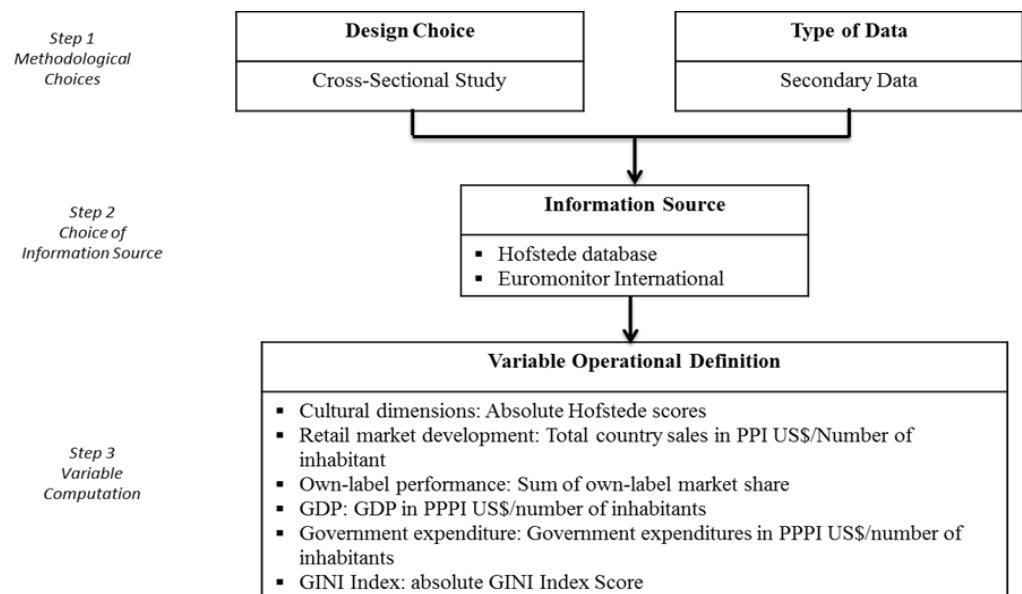


In fine, this study obtain a unique dataset composed of ten (10) variables: the five Hofstede's cultural dimensions: Power Distance (PDI), Individualism/Collectivism (IDV), Masculinity/Femininity (MAS), Uncertainty Avoidance (UAI) and Long-Term Orientation (LTO); a variable composing the development of the grocery retail market : the size of the retail market per inhabitant (Market Size), three socio-economic variables: GDP per capita, Government Expenditure and GNI Index and the performance of own-label brands in the packaged food category (OLB Perf) own-label brands performance.

## 4.4 Descriptive Analysis

### 4.4.1 Sample Size and Composition

In order to test the effect among ten different variables (cultural dimensions: PDI, IDV, MAS, UAI,& LTO, retail market development, own-label market shares and three control (socioeconomic) variables: GDP per capita, Government expenditure and GINI index) this study included 65 countries in sample. It was consider that this sample size is sufficient to allow the generalization and validation of the results.

The 65 countries included in the dataset are the countries for which this study has been able to collect information about all the variables of the conceptual framework (Euromonitor and Hofstede's text book). The reader can refer to Appendix 1 to check the respective full list of countries of each source. The countries included in the dataset are from various parts of the world. Due to data availability issues, Europe is overrepresented. However, this unequal repartition should not alter the results since, as the reader will see the descriptive analysis, there is a large variance for all measured variables.  Table 4.2 show the geographical distribution of the countries included in the analysis.

**Table 4. 2: Countries Included in the Analysis**

| Asia Pacific | Australia | Eastern Europe | Western Europe | North America | Latin America | Middle East & Africa |
|---|---|---|---|---|---|---|
| China Hong Kong India Indonesia Japan Malaysia Pakistan Philippines Singapore South Korea Taiwan Thailand Veitnam | Australia NewZealand | Bulgaria Croatia Czech-Republic Estonia Hungary Poland Romania Russia Serbia Slovakia Slovenia | Austria Belgium Denmark Finland France Germany Greece Ireland Italy Netherlands Norway Portugal Spain Sweden Switzerland Turkey United-Kingdom | Canada United-States | Argentina Brazil Colombia Chile Costarica Ecuador Guatemala Mexico Peru Uruguay Venezula | Egypt Iran Israel Kenya Morocco Nigeria Saudi Arabia South Africa United Arab-Emirates |
| 13 | 2 | 11 | 17 | 2 | 11 | 9 |

Total number of countries = 65

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**4.4.2 Own-Label Brands Performance**

The descriptive analysis of the variable "Own-Label Brand Performance" (OLB Perf) shows that the market share of own-label brands varies country to country (see Figure 4.5). Switzerland (43%), United Kingdom (36%), Germany (34%) and the Netherland (32%) display the highest level of own-labels performance. On the contrary, India Nigeria, Morocco, Iran and Egypt have the lowest level of own-label brands' performance (less than 1%). This shows that own-label brand performance differs according to country, with a predominance of market share of own-label brands in Western European countries. The lowest levels of OLB Perf are displayed by countries from different parts of the world such as Asia, South America or Africa.

**Figure 4. 5: Market Share of Own-Label Brands - Country Level**
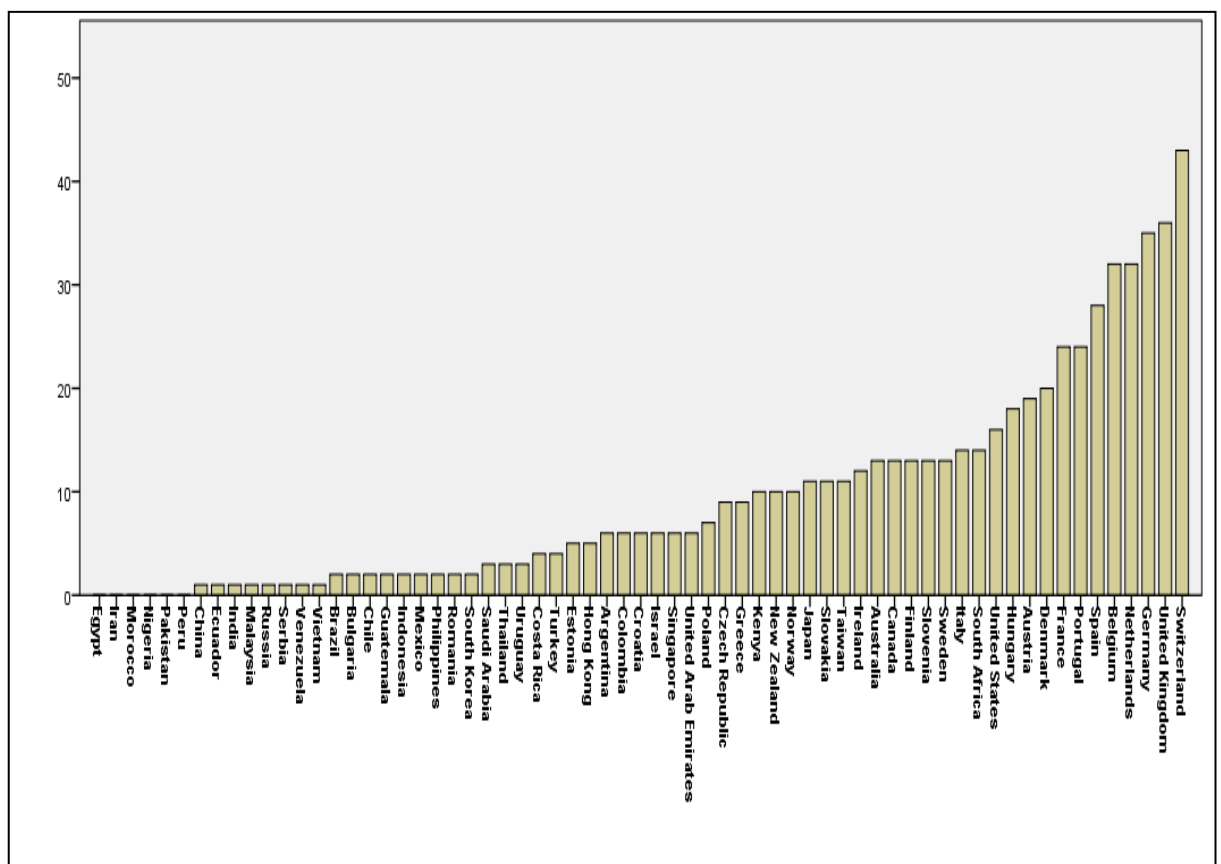
Moreover, Table 4.3 reports that the average market share of own-label brands in all countries is 9.37% with the standard deviation of 10.16. The minimum and maximum values that own-label market shares take across the countries are 0% and 43% respectively.

**Table 4. 3: Descriptive Results of Own-Label Market Shares**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|-----|---------|---------|------|----------------|
| OLB Perf | 65 | 0 | 43 | 9.37 | 10.16 |

## 4.4.3 Retail Market Development

Retail market development represents the total sales performed by grocery retailers in purchase power parity (PPP) US$ per inhabitant. The descriptive analysis shows retail market development differs across countries. Figure 4.6 reports that countries like Norway (3.61 PPP US$/inhab.), Belgium (3.78 PPP US$/inhab.), Ireland (3.84 PPP US$/inhab.), and Switzerland (4.27 PPP US$/inhab.) got the largest level of retail market development per inhabitant. At the opposite side of our sample, countries such as Vietnam (0.34 PPP US$/inhab.), Nigeria (0.28 PPP US$/inhab.), Pakistan (0.27 PPP US$/inhab.), and Kenya (0.19 PPP US$/inhab.) got the lowest level of retail market development per inhabitant.

A first quick glance at Figures 4.5 and 4.6 show that some countries such as Switzerland or Belgium belong to the top 5 for both own-label brand performance and retail market development, and that some countries such as Pakistan and Nigeria both belong to the last 5 countries on these variables. This is a first visual indication of the possible correlation between both variables, and therefore of the importance of taking into account retail market development when studying own-label brand performance.

**Figure 4. 6: Retail Market Development - Country Level**
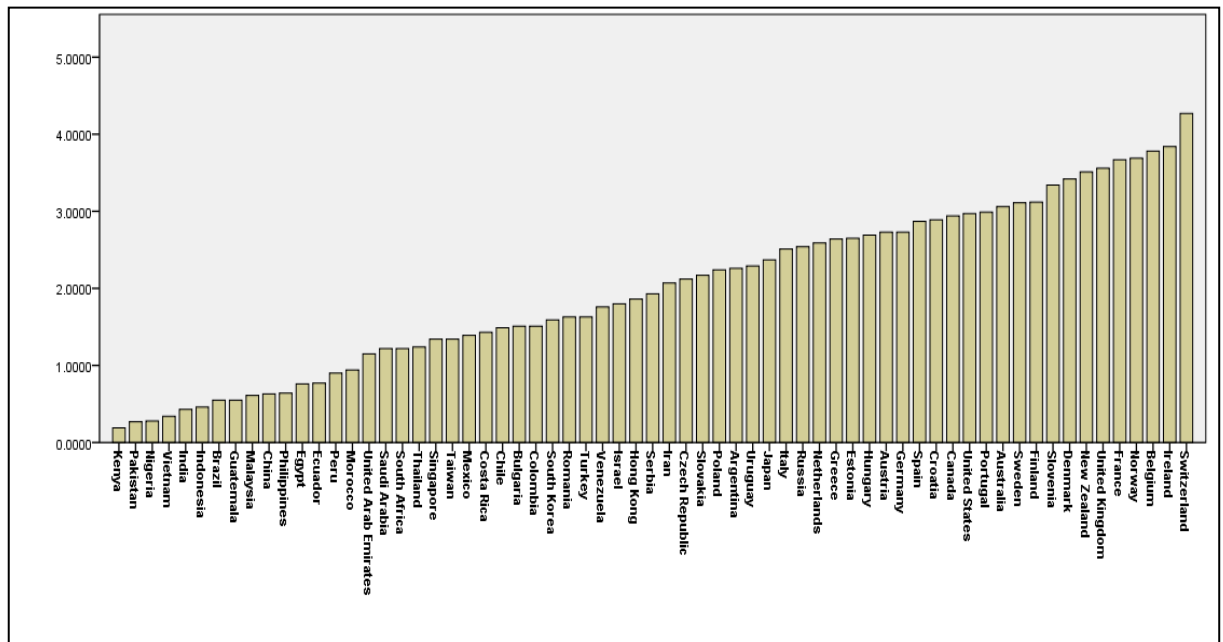


Moreover, Table 4.4 reports that the average retail market development in all countries is 1.98PPP US$/inhab. with the standard deviation of 1.08. The minimum and maximum values that the size of retail markets takes across the countries are 0.19 PPP US$/inhab.and 4.27 PPP US$/inhab. respectively.

**Table 4. 4: Descriptive Results of Retail Market Development**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Market Size Retail Market Development | 65 | 0.19 | 4.27 | 1.98 | 1.08 |

### 4.4.4 Cultural Dimensions

*Power Distance*

As showed by Figure 4.7, the descriptive analysis reports that countries like Kenya (94), Philippines (94) Guatemala (95), and Malaysia (104) score very highly in terms of power distance (PDI). On the contrary, countries like Slovakia (14), Israel (13), Slovenia (11) and

Austria (11) score low in terms of PDI. Like many other variables, it is difficult to see a clear geographical pattern for the values of this variable.

**Figure 4. 7: Scores of Power Distance**
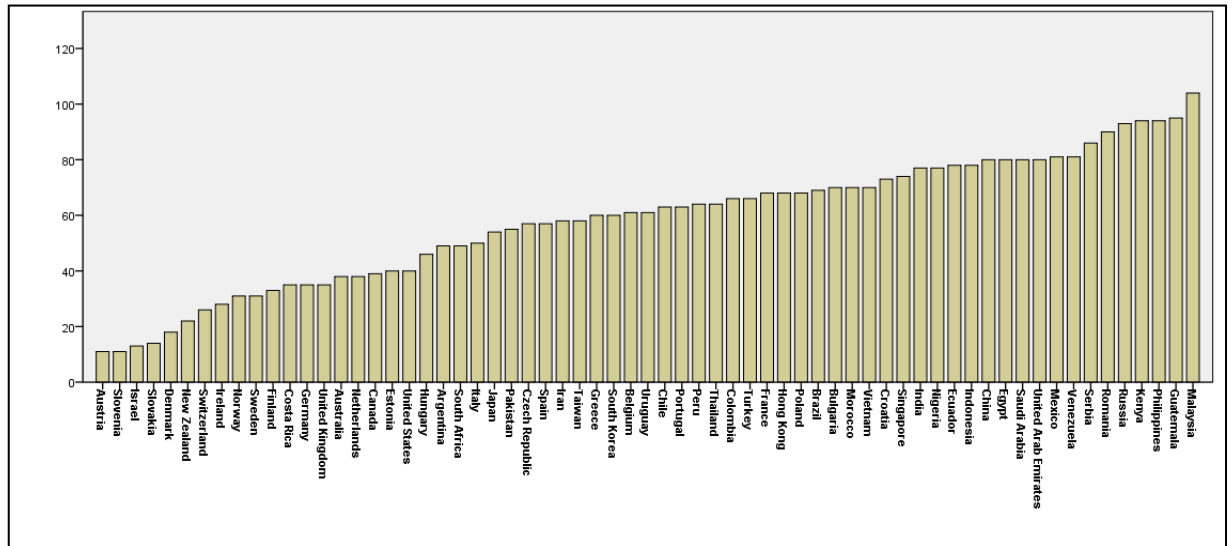


Moreover, Table 4.5 shows that the average score of power distance in our sample is 58.11, with a standard deviation of 23.15. The minimum and maximum values that PDI takes across the countries of our sample are 11 and 104 respectively.

**Table 4. 5: Descriptive Results of Power Distance**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|-----|---------|---------|-------|----------------|
| PDI | 65 | 11 | 104 | 58.11 | 23.15 |

*Individualism*

As shown by Figure 4.8, the descriptive analysis reports that countries such as the Netherlands (80), United Kingdom (89), Australia (90), and the United States (91) score very highly on the cultural dimension of individualism (IDV), whereas Colombia (14), Venezuela (12), Ecuador (8) and Guatemala (6) score very low on this dimension.

**Figure 4. 8: Scores of Individualism**
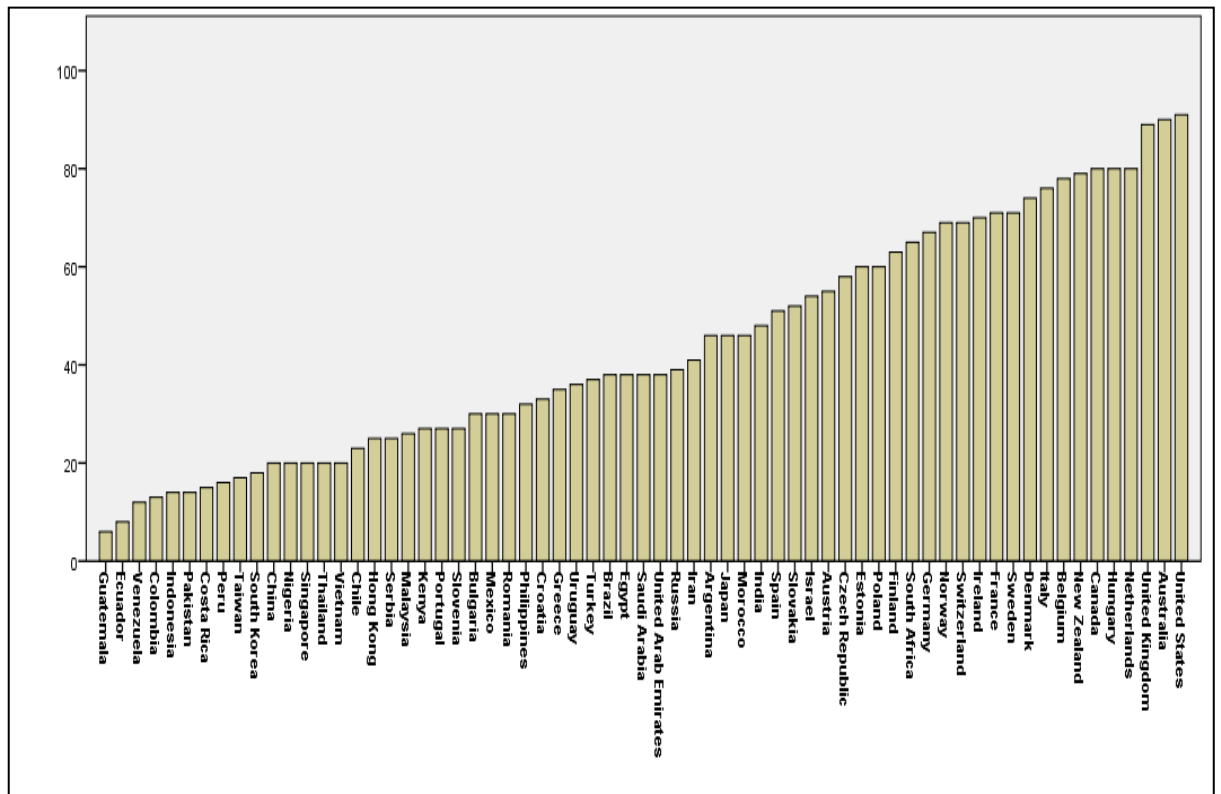


Moreover, as shown by Table 4.6, the average score on the individualism dimension in our sample is 43.78, with the standard deviation of 23.82. The minimum and maximum values that IDV takes across the countries of our sample are 6 and 91 respectively.

**Table 4. 6: Descriptive Results of Individualism**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|-----|---------|---------|-------|----------------|
| IDV | 65 | 6 | 91 | 43.78 | 23.82 |

*Masculinity*

As shown in Figure 4.9, descriptive analysis of the data shows that Austria (79), Hungary (88), Japan (95) and Slovakia (110) are highly masculine countries as they score highly on the cultural dimension of masculinity (MAS). In contrast, Denmark (16), Netherlands (14), Norway (8), and Sweden (5) display a very low level of masculinity.

**Figure 4. 9: Scores of Masculinity**
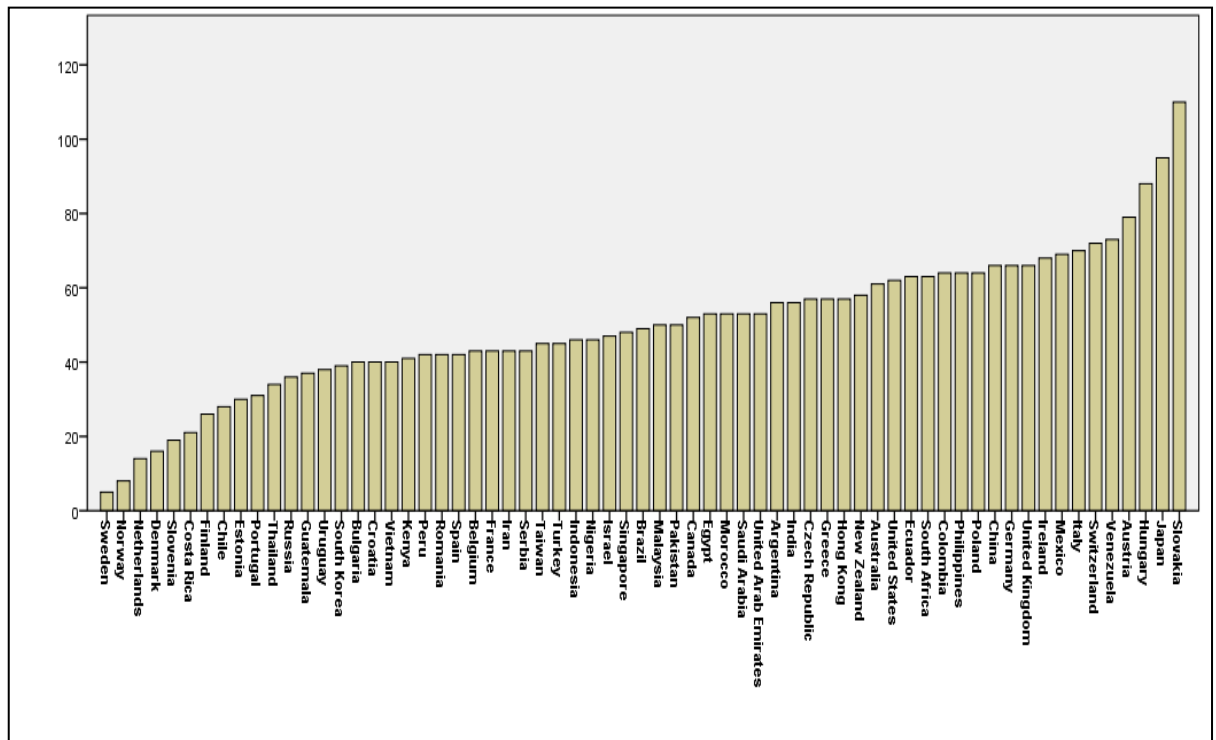


Moreover, Table 4.7 shows that the average masculinity score in the sample is 49.77, with a standard deviation of 19.32. The minimum and maximum values that masculinity takes across the countries of our sample are 5 and 110 respectively.

**Table 4. 7: Descriptive Results of Masculinity**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|-----|---------|---------|-------|----------------|
| Masculinity | 65 | 5 | 110 | 49.77 | 19.32 |

*Uncertainty Avoidance*

As shown in Figure 4.10, the descriptive analysis shows that Uruguay (100), Guatemala (101), Portugal (104), and Greece (112) score very highly on cultural dimension uncertainty avoidance (UA). On the contrary, Sweden (29), Hong Kong (29), Denmark (23) and Singapore (8) score very low on this UA dimension.

**Figure 4. 10: Scores of Uncertainty Avoidance**
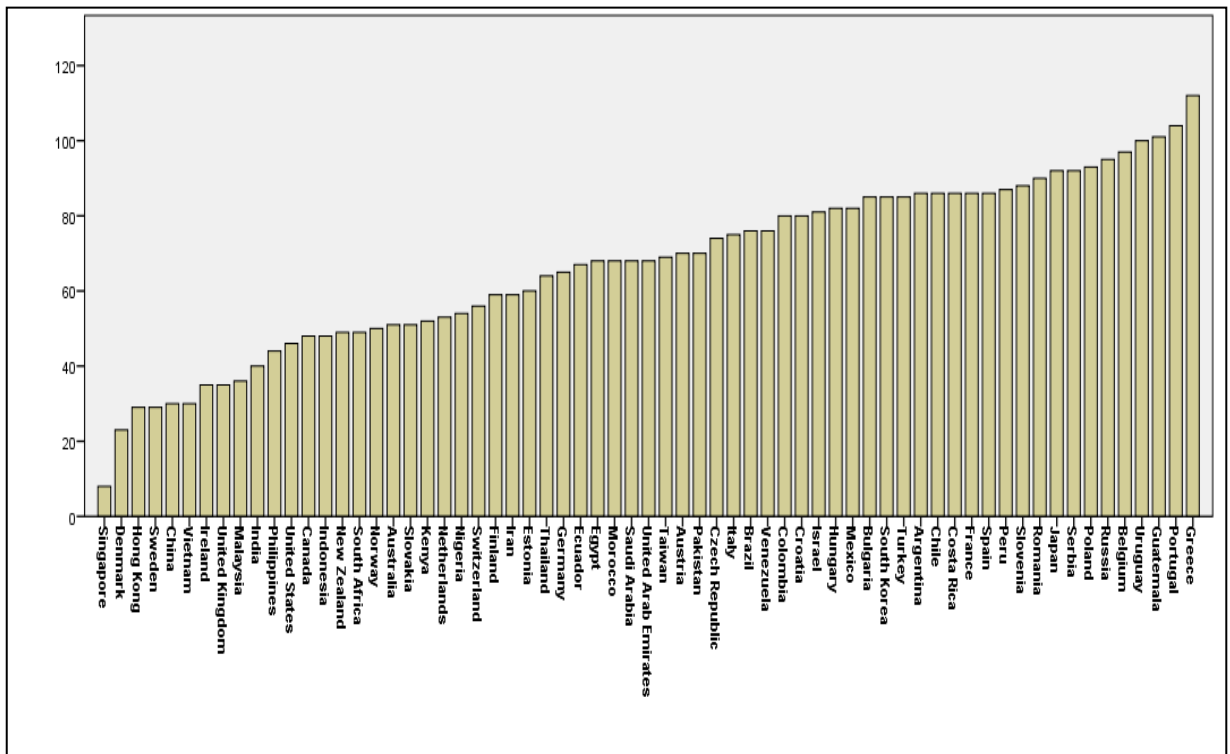


Moreover, Table 4.8 reports that the average score for uncertainty avoidance in our sample is 66.82 with the standard deviation of 22.87. The minimum and maximum values that UA takes across the countries of our sample are 8 and 112 respectively.

**Table 4. 8: Descriptive Results of Uncertainty Avoidance**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|-----|---------|---------|-------|----------------|
| UA | 65 | 8 | 112 | 66.82 | 22.87 |

*Long-Term Orientation*

As shown in Figure 4.11, the descriptive analysis shows that China (87), Japan (88), Taiwan (93) and South Korea (100) score very highly on cultural dimension long-term orientation (LTO). On the other hand, Colombia (13), Costa Rica (13), Guatemala (13) and Egypt (7) score very low on this LTO dimension.

**Figure 4. 11: Scores of Long-Term Orientation**
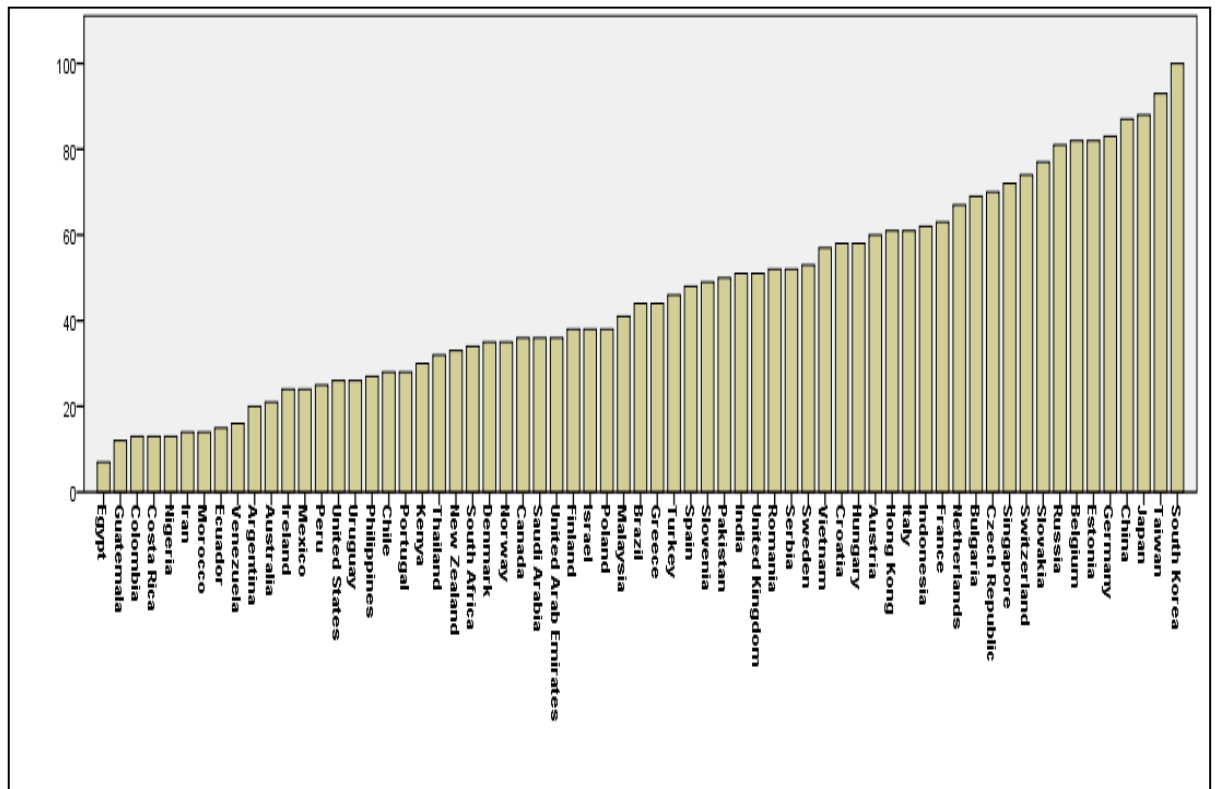


Moreover, Table 4.9 reports that the average score for long-term orientation in the sample is 45.74 with the standard deviation of 23.52. The minimum and maximum values that LTO take across the countries of our sample are 7 and 100 respectively.

**Table 4. 9: Descriptive Results of Long-Term Orientation**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|---|---------|---------|------|----------------|
| LTO | 65 | 7 | 100 | 45.74 | 23.52 |

### 4.4.5 Control (Socioeconomic) Variables

*GDP per capita*

The descriptive analysis shows GDP per capita differs across countries. Figure 4.12 reports that countries like United States (48.19 PPP US$/inhab.), Hong Kong (49.36 PPP US$/inhab.), Norway (57.09 PPP US$/inhab.), and Singapore (61.46PPP US$/inhab.) have

the largest GDP per inhabitant. At the opposite side, countries such as Vietnam (3.42 PPP US$/inhab.), Pakistan (2.56 PPP US$/inhab.), Nigeria (2.52PPP US$/inhab.), and Kenya (1.69 PPP US$/inhab.) have the largest GDP per inhabitant.

**Figure 4. 12: GDP per Capita**
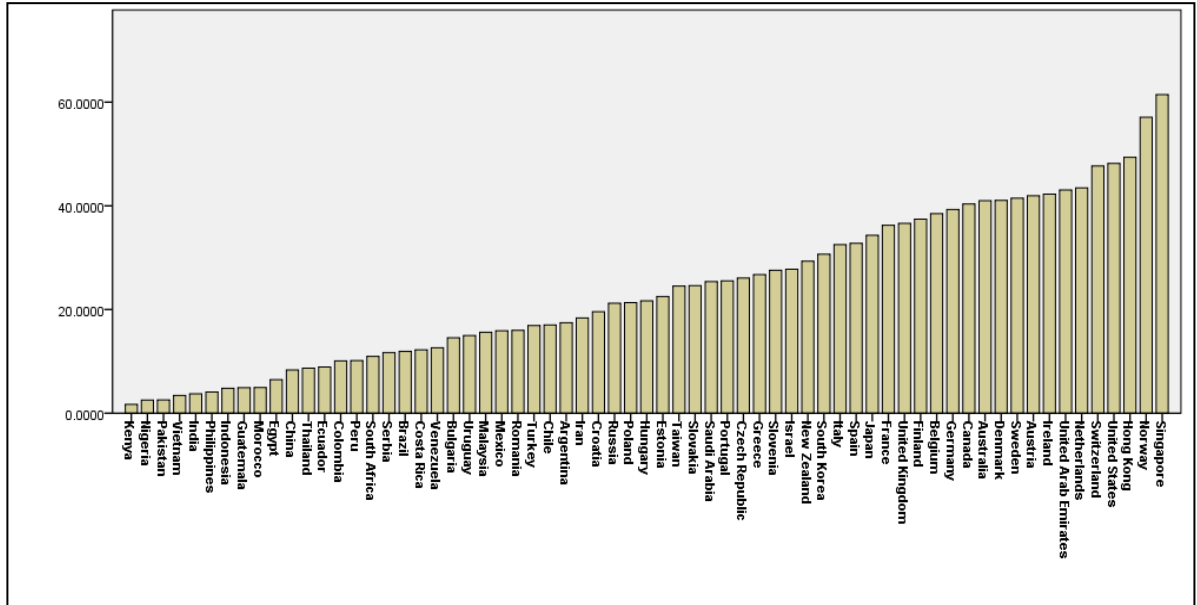


Moreover, Table 4.10 reports that the average score for GDP per capita is 23.87PPP US$/inhab with the standard deviation of 15.11PPP US$/inhab. The minimum and maximum values that GDP per capitaacross the countries of our sample are 1.69PPP US$/inhab and 61.46PPP US$/inhab respectively.

**Table 4. 10: Descriptive Results of GDP per Capita**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| GDP | 65 | 1.69 | 61.46 | 23.87 | 15.11 |

*Government Expenditure*

Figure 4.13 reports that countries like South Korea (5401.55 US$/inhab.), Indonesia (5799.44 US$/inhab.), Vietnam (8875.13 US$/inhab.) and Iran (10465.07 US$/inhab.) have the highest level of government expenditure. On the contrary, countries like Bulgaria (3.58 US$/inhabi.),

Peru (2.92 US$/inhabi.), Ecuador (2.23 US$/inhabi.) and United States (0.94 US$/inhabi.) have the lowest.

**Figure 4. 13: Government Expenditure**
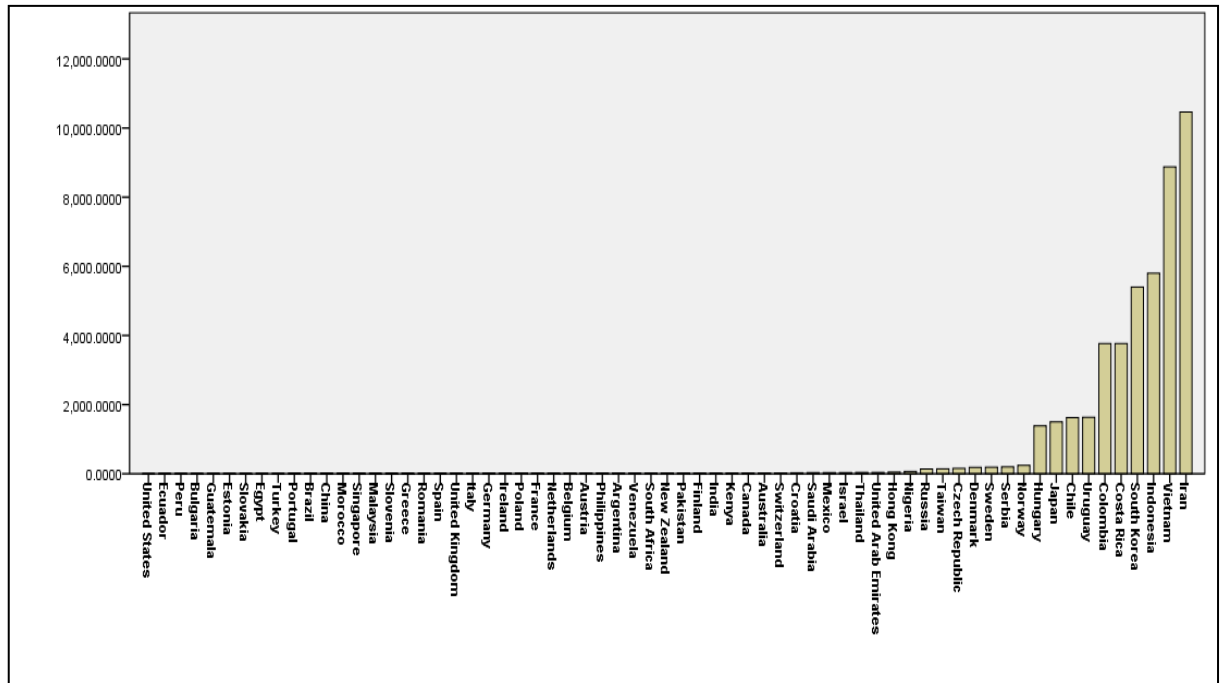


Moreover, Table 4.11 reports that the average score for government expenditure per inhabitant is 712.34 US$/inhab with the standard deviation of 2000.98 US$/inhab. The minimum and maximum values that government expenditure per inhabitant takes across the countries of our sample are 0.94 US$/inhab and 10465.07 US$/inhab respectively.

**Table 4. 11: Descriptive Results of Government Expenditure**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|----|---------|----------|--------|----------------|
| GDP | 65 | 0.94 | 10465.07 | 712.34 | 2000.98 |

*Gini Index*

Gini index represent income distribution. The descriptive analysis shows income distribution differs across countries. Figure 4.14 reports that countries like Costa Rica (54.80), Guatemala (54.80), Ecuador (59.20), and South Africa (63.60) have the largest income distribution. At

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the opposite, countries such as Hungary (29.10), Finland (26.90), Slovakia (26.20), and Czech

Republic (25.60) have the lowest level of income distribution.

**Figure 4. 14: GINI Index**
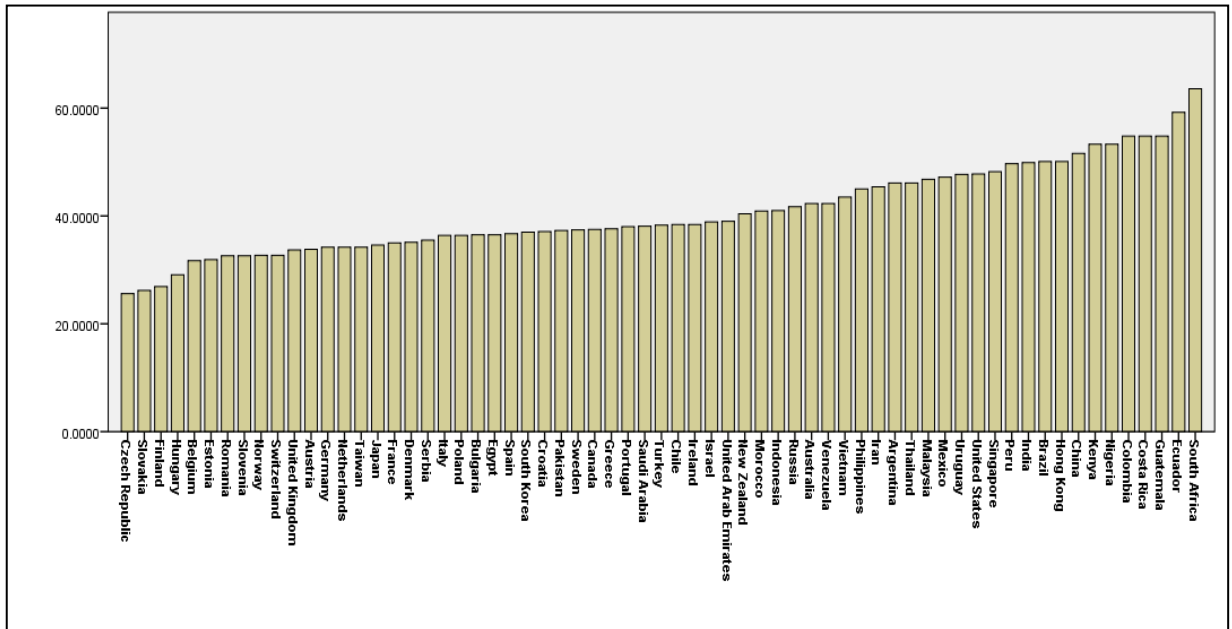


Moreover, Table 4.12 reports that the average score for GINI index in our sample is 40.69

with the standard deviation of 8.21. The minimum and maximum values that GINI Index

takes across the countries are 25.60 and 63.60 respectively.

**Table 4. 12: Descriptive Results of GINI Index**

| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
|----------|-----|---------|---------|-------|----------------|
| GDP | 65 | 25.60 | 63.60 | 40.69 | 8.21 |

**4.4.6 Correlations Analysis**

After describing the general shape of each of the individual variables of our dataset, the last

objective of this descriptive analysis is to investigate if there is any statistically significant

correlation between these different variables: the five cultural dimensions (PDI, IDV, MAS,

UAI & LTO), retail market development, own-label brands performance (OLB Perf) and the

three socio-economic control variables: GDP per capita, Government Expenditure and GINI index. In this aim, this study performed a bi-variate correlation analysis. Results are displayed on Table 4.13. Among the five cultural dimensions, power distance is significantly correlated with own-label brands performance ($r = -0.531$, $p < 0.01$). The coefficient is negative, which means that there is a negative correlation between these two variables. More specifically, countries with a large power distance are negatively associated with own-labels performance.

Similarly, there is a significant correlation between individualism and own-label market shares ($r = 0.663$, $p < 0.01$). This indicates that there is a positive relationship between individualism and own-label brands performance. In other words, individualistic countries are more prone to have retailers very successful with their own-label brands than collectivistic countries.

Moreover, the results also report that there is a significant relationship between long-term orientation and own-label brands performance ($r = 0.317$, $p < 0.05$). In particular, long-term orientation countries are more prone to have retailers very successful with their own-labels compared to short-term oriented countries.

As shown in Table 4.13, two cultural dimensions masculinity and uncertainty avoidance are not significantly correlated with own-labels market shares. Therefore, it cannot be drawn any preliminary expectation regarding the relationships between these variables.

In addition, total grocery per inhabitant represents retail market development of a country is significantly correlated with the market shares of own-label brands ($r = 0.711$, $p < 0.01$). The results indicate that there is a positive significant correlation between these two variables.

More specifically, a developed retail market of a country dominated by its large market size enhances the performance of own-label brands.

Further, regarding to the three control (socioeconomic) variables: *First,* GDP per capita significantly correlates with own-labels market shares ($r = 0.611$, $p< 0.01$). The result indicates there is a positive association between these variables. In particular, countries having high GDP per capita are more prone to retail market development which enhances more modern retailers having very successful own-labels brands compared to countries having low GDP per capita. *Second,* income distribution represents Gini index significantly correlates with the market shares of own-label brands. The result shows there is a negative association between these variables. In another word, a country having a high GINI index has a poor income distribution which prone less developed retail market and thus less performance of own-label brands. *Third,* no significant relationship was found between government expenditure and own-label market shares.

**Table 4. 13: Correlations of Culture, Retail Market Development, Socio-Economic Variables and Own-Label Brands Performance**

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| OwnLabel_MS | 1 | | | | | | | | | |
| Tot_Groc_Pop | .711** | 1 | | | | | | | | |
| Hofst3_PDI | -.531** | -.663** | 1 | | | | | | | |
| Hofst3_IDV | .663** | .728** | -.605** | 1 | | | | | | |
| Hofst3_MAS | 0.073 | -0.052 | -0.006 | 0.12 | 1 | | | | | |
| Hofst3_UAI | -0.066 | 0.058 | 0.161 | -0.231 | -0.023 | 1 | | | | |
| Hofst3_LTO | .317* | 0.21 | -0.127 | 0.137 | 0.111 | -0.052 | 1 | | | |
| GDP_POP | .611** | .744** | -.556** | .616** | -0.038 | -.260* | .326** | 1 | | |
| Govt_Expdt_Pop | -0.227 | -0.191 | 0.052 | -.248* | -0.102 | -0.056 | -0.021 | -0.211 | 1 | |
| Gini_Index | -.423** | -.578** | .422** | -.449** | -0.006 | -0.151 | -.487** | -.443** | 0.131 | 1 |

Notes: *$p < 0.05$; **$p< 0.01$; $N = 65$; *Dependent variable*: OwnLabel_MS (Own-label brands performance); *Independent variables*: Tot_Gros_Pop (Retail Market Development), Hofst3_PDI (Power distance), Hofst3_IDV (Individualism), Hofst3_MAS (Masculinity), Hofst3_UAI (Uncertainty avoidance), Hofst3_LTO (Long-term orientation); *Control variables*: GDP_POP (GDP per inhabitant), Govt_Expdt_Pop (Government expenditure per inhabitant), Gini_index (Gini index).

Of course, the relationships found in this correlation analysis are just indications of potential relationships between variables. A more sorrow analysis has to be performed, including all variables in a single model. This is what the thesis will present in next chapter.

## 4.5 Summary Remarks

This chapter has outlined the methodological approach used in this thesis. Methodological choice, use of cross-sectional research design, in the thesis was discussed in the early part of this chapter. Following this, the dataset building procedures were discussed, actual data collection summarised, and sample size and composition were presented. The chapter then concluded with a descriptive analysis and presented descriptive results such as mean, standard deviation and correlation of the constructs. Chapter five now presents data analysis and results employing structural equation modelling technique.

# Chapter 5

# Research Methodology – 2:

# Data Analysis and Results

## 5.1 Introduction

A conceptual framework presented in Chapter 3 proposed several hypotheses regarding the impact of culture on own-label brands' performance, using retail market development as a mediator. Chapter 4 presented data collection procedures to test the hypotheses of this study. The objective of the present chapter is to explain the data analysis in order to test the conceptual framework. It explains why and how to perform Structural Equation Modelling (SEM) on this data in order to investigate the impact of culture on own-label brands performance. The analysis approach consisted in building successive models by gradually incorporating variables in the analysis, allowing us to determine the additional contribution of each type of variable to the model. Results show that cultural dimensions greatly contribute to the model fit and that some of these dimensions have a decisive impact on the explanation of the own-label brands' performance.

This chapter is divided into three key parts. **Section 5.2** describes the SEM methodology. This section also explain the importance of using SEM in marketing research as well as the different steps that compose a SEM procedure: specification, identification, estimation, evaluation and re-specification. **Section 5.3** explains the reasons why SEM is the appropriate method for this research. Finally, **Section 5.4** presents and compares the different successive

models that have built as well as the results of the hypotheses testing. Figure 5.1 provides a visual representation of the organisation of this chapter.

**Figure 5. 1: Organisation of Chapter 5**

| **5.2 SEM Procedures Description** |
| --- |
| Model specification<br>Model identification<br>Model estimation<br>Model evaluation<br>Model Modification |

| **5. 3 The Use of SEM in the Present Study** |
| --- |
| Test all relationships simultaneously<br>Use different types of measurements<br>Statistical software<br>Sample size |

| **5.4 SEM Procedures Description** |
| --- |
| Application of SEM in the present study<br>Test and comparisons of successive competing models<br>Hypotheses testing results |

## 5.2 Structural Equation Modelling (SEM)

Structural equation modelling (SEM) is a multivariate procedure that combines aspects of factor analysis and multiple regressions to simultaneously examine a series of interrelated and dependent relationships among variables that can either be observed variables or latent constructs (Hair *et al.,* 2006). These relationships between variables and constructs are depicted by a series of multiple regression equations. SEM allows the researcher to test if the series of hypothesised relationships between variables fits the data that has been collected and, if needed, to determine the theoretical model that fits the data at best. The SEM procedure follows a logical sequence of five steps: model specification, model identification,

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models estimation, model evaluation, and model modification. This section explains in details the procedure.

### 5.2.1 Model Specification

The first step, model specification consists in formally stating a model (Hoyle, 1995). It involves the use of all of the available relevant theory, research, and information in the aim of developing a theoretical framework (Schumacker and Lomax, 2004). Thus, prior to any data collection or analysis, the researcher specifies a theoretical model that should be confirmed with variance-covariance data. More specifically, available theory and information are used to decide which variables to include in the theoretical model (which implicitly also involves which variables not to include in the model) and how these variables are related (Schumacker and Lomax, 2004).

According to Weston and Gore (2006), model specification has to be performed very carefully. Researchers using SEM are required to specify hypothesised relationships among variables a priori. Sounded justifications are necessary not only for the indicated structural relationship but also for those that are not indicated (McDonald and Moon-Ho, 2002). Indeed, SEM is based on raw data that takes the form of either a correlation matrix or a covariance matrix (an unstandardised correlation matrix). It means that SEM represents a full-information statistical approach; as a consequence, all estimates resulting from a model that omits key relationships will be biased (Chin *et al.,* 2008).

### 5.2.2 Model Identification

The second step, model identification, concerns the correspondence between the information to be estimated – the free parameters – and the information from which it is to be estimated – the observed variances and covariances. More specifically, model identification concerns whether a single, unique value for each and every free parameter can be obtained from the

observed data (Hoyle 1995). Literature reports three types of model identification: first, under-identified model; second, just-identified model; and third, over-identified model (see e.g., Byrne, 2010; Weston and Gore, 2006). A model is *under-identified* (or not identified) if one or more parameters may not be uniquely determined because there is not enough information in the data set (Schumacket and Lomax, 2004). A model is *just-identified* if there is a one-to-one correspondence between the data and the structural parameters. That is to say, the number of data variances and co-variances equals the number of parameters to be estimated (Byrne, 2010). Finally, a model is *over identified* if there is more unique covariance and variance terms than parameters to be estimated (Hair *et al.,* 2010). Weston and Gore (2006) said that determining whether the model is over-, under, or just-identified is a fairly straightforward process that involves determining the number of degrees of freedom. This number of degrees of freedom is calculated by subtracting the number of parameters to be estimated from the number of known elements (correlations) in the correlation matrix.

### 5.2.3 Model Estimation

Once a model has been identified, the third step consists in obtaining estimates of the free parameters from a set of observed data (Hoyle 1995). Model estimation involves determining the value of the unknown parameters and the error associated with the estimated value (Weston and Gore, 2006). Schumacker and Lomax (2004) explain that there are several types of estimation procedures, such as maximum likelihood (ML), unweighted or ordinary least squares (ULS or OLS) generalised least squares (GLS) and asymptotic distribution free (ADF). There are pros and cons with each estimation method; the choice depends, in part, on data conditions, such as sample size, data distribution (e.g., degree of univariate and multivariate normality), and the type of data matrix used as input i.e. covariance versus correlation (Chin *et al.,* 2008). Comparing the ML and GLS methods Joreskog and

Goldberger (1972) found the GLS estimates are likely to be negatively biased. The results reported for the ADF approach have not been consistent (Hoyle, 1995). The disadvantage of ADF is that it needs very large samples (i.e., n = 500 or more) to generate accurate estimates for even the simplest models (Yuan and Bentler, 1998). In contrast, simple models estimated with ML require a small sample for accurate estimates (Weston and Gore, 2006).

**5.2.4 Model Evaluation**

Once parameter estimates have been obtained, the fourth step consists in evaluating the model fit. The model fit determines the degree to which the sample variance-covariance data fits the structural equation model (Schumacker and Lomax, 2004). According to Weston and Gore (2006) the researcher should evaluate model fit in terms of (a) significance and strength of estimated parameters, and (b) how well the overall model fits the observed data, as indicated by a variety of fit indices.

Numerous model-fit-indices can be found in the literature. Each index often provides sufficient unique information to evaluate the fitness of a model. However, as advised by Hair et al., (2010), researcher does not need to report all of these indices because of the redundancy among them. Typically, using three to four fit indices provides adequate evidence of model fit (Hair *et al.,* 2010). In this context, Hair *et al.,* (2010) suggest that in addition to the chi-square value and the associated value of *df*, the researcher should report at least one incremental index (e.g., CFI) and one absolute index (such as RMSEA).

**5.2.5 Model Modification**

If the fit of the implied theoretical model is not strong enough (which is typically the case with an initial model), the fifth step of the SEM procedure is to modify the model and

subsequently evaluate the new modified model in order to get a better level of fit (Schumacker and Lomax, 2004). However, Hair *et al.,* (2010) urged that any model modification must have strong theoretical as well as empirical support.

In order to determine how to modify the model, there are a number of procedures available for the detection of specification errors so that more properly specified subsequent models may be evaluated (Schumacker and Lomax, 2004). In general, these procedures are used for performing what is called a specification search (Leamer and Leamer, 1978). The purpose of specification search is to alter the original model in order to find a model that is better fitting in some sense and yields parameters having practical significance and substantive meaning (Schumacker and Lomax, 2004).

## 5.3 The Use of SEM in The Present Study

The use of SEM in cross-sectional data is common (MacCallum and Austin, 2000). SEM is an important tool for marketing researchers (Iacobucci, 2009). Steenkamp and Baumgartner (2000) explain that one of the main reasons why SEM is so useful for marketing research is that it makes a clear distinction between unabsorbed, theoretical constructs and fallible, empirical measures. SEM allows researchers to test theoretical propositions regarding the way constructs are theoretically linked and regarding the directionality and the significance of the relationships between constructs (Schreiber *et al.,* 2006). SEM is therefore a powerful research tool for theory testing (Steenkamp and Baumgartner 2000).

The present research had to choose between different available methods to analyse the data. More specifically, the two main possible methods were SEM and the classical multivariate regression analysis. The following paragraphs justify why this study have chosen SEM.

### 5.3.1 The Possibility to Test All Relationships Simultaneously

The first important reason why this study used SEM is based on Tomarken and Waller (2005). According to the authors SEM allows for the theoretical estimation of all relationships conducted simultaneously, accounting for potential measurement error as opposed to testing the model in a piecemeal fashion (James *et al.,* 2006). Empirical relationships between all observed variables are compared to the relationships implied by the structure of the theoretical model.

On the contrary, traditional multiple regression analysis assesses only a single relationship between the independent and dependent variables (Chen *et al.,* 2011). Therefore, to test the theoretical model using traditional regression analysis, this study would have had to test different parts of the model independently. For instance, this study would have had to test in a first regression model the impact of cultural dimensions on retail market development, then, in a second regression model, the impact of retail market development on own-label brands performance. This would not have given the researcher the possibility to test all relationships simultaneously.

### 5.3.2 The Possibility to Use Different Kinds of Variable Measurement

SEM specifies and simultaneously estimates relationships among multiple observed and latent variables, allowing alternative models to be compared to a theoretically derived model in determining the fit of the data to the model (Byrne, 2001). Very often, SEM uses unobservable and latent variables that are measured by several questionnaire items. However, according to Steenkamp and Baumgartner (2000), even in the cases where variables are measured by a single indicator, SEM can still be used. For example, if the researcher has some idea about the extent of measurement error in an observed variable, this information can

be incorporated into the model by fixing the error variance to a non-zero value. If no information about measurement error is available, the researcher can still conduct sensitivity analyses to assess the robustness of parameter estimates to measure unreliability (Steenkamp and Baumgartner 2000).  On the contrary, traditional multivariate methods such as regression are incapable of either assessing or correcting measurement error (Byrne, 2010).

This is particularly adapted to this research as the variables are measured by singe indicators that suppose being "perfect measurements" of the constructs. Thus, considering the limitations of traditional multivariate methods (e.g., multiple regression) and the recommendations of several studies (e.g., Byrne, 2010; Hair *et al.,* 2010; Iacobucci, 2009; Schreiber *et al.,* 2006), SEM is applied in this cross-sectional study to test the hypotheses of the conceptual framework representing the impact of culture on own-label brands performance.

### 5.3.3 The Choice of Statistical Software

There are a number of SEM packages available to researchers such as AMOS (Analysis of Moment Structures), LISREL (Linear Structural Relations), or EQS (Byrne, 2001). Although statistical software such as LISREL and EQS possess several advantages to conduct SEM analysis, in this study AMOS software was used, because of several advantages addressed by a number of academics (see e.g., Babin *et al.,* 2008; Byrne, 2010; Hair *et al.,* 2010).

In particular, Babin *et al.,* (2008) highlight two advantages of the AMOS statistical software: 1) Relative to other statistical packages, AMOS can be added to the basic SPSS setup that is familiar to most researchers in marketing; 2) AMOS is more user-friendly than other packages; for example it is an application with an easy-to-use graphical communication interface and the ability for the user to estimate SEM models without the need to write syntax

or programming statements. In a similar vein, Gallagher *et al.,* (2008) urged that in AMOS there is no need to learn and remember computer coding while Byrne (2010) explains that AMOS Graphics provides the user with all tools that will ever be needed in creating and working with SEM path diagrams.

However, the decision regarding which package to use is largely based upon personal preference, as all statistical packages have their own comparative advantages and disadvantages (Gallagher *et al.,* 2008). In the case of this study, the main advantage of AMOS may be to help the user, especially a new user, to handle the analysis and organise the data (Hair *et al.,* 2010).

### 5.3.4 The Sample Size

Adequacy of sample size has a significant impact on the reliability of parameter estimates, model fit, and statistical power (Shah and Goldstein, 2006). However, there is conflicting information on what sample size is adequate for SEM (Weston and Gore 2006). Past studies, for instance, recommended that a larger sample size of >200 is more appropriate for SEM (Kline 2005). In contrast, MacCallum and Austin (2000) reported that about 18% of the studies, based on SEM, used small samples of fewer than 100 individuals.

A frequently promoted rule of thumb concerns the minimum recommended ratio of sample size to number of parameters to be estimated in a SEM (Bogozzi and Yi, 2010). Tabachnick and Fidell (1996) recommended at least 10 respondents per estimated parameter, whilst Stevens (1996) recommends that there should be 15 responses per measured variable. However, Bentler and Chou (1987) recommended that there should be at least 5 responses per parameter. In a similar vein, Bagozzi and Yi (2010) found, in practice, satisfactory models have been obtained with ratios near 3:1. Further, Iacobucci (2010) reported that SEM models

can perform well even with small samples (e.g., 50 to 100). Prior research provides evidence that even with small samples, SEM models can perform well. This study therefore employed 65 countries to run the SEM models.

**5.4 Test of the Theoretical Framework**

This section briefly discusses the results of hypotheses testing. To test the hypotheses four competing models were sequentially tested. Next, the application of the five steps of the SEM procedures will be explained, and subsequently present the results of the hypotheses testing.

**5.4.1 Application of the Five Steps of the SEM Procedure in this Present Study**

*Model Specification*. The development of a theoretical model has been performed in Chapter 3. The necessary justification for each of the hypothesised relationship between the different variables of the model has been provided. See Figure 5.2. Basically, this have specified 1) a relationship between Retail Market Development and Own-Label Brand Performance, 2) direct relationships between each of the five cultural dimensions and Retail Market Development, 3) direct relationships between the five cultural dimensions and Own-Label Brand Performance, and 4) direct relationships between the three socio-economic control variables and Retail Market Development. All these relationships represent a conceptual framework i.e. the impact of culture on own-label brand performance. To test a conceptual framework this study specifies the four successive models (see e.g., Hair *et al.,* 2010). The first model specifies only containing retail market development and own-label brand performance (Model 1). The second model specifies incorporating the link between retail market development and own-label brand performance to which the impact of the socio-economic factors on retail market development is added (Model 2). Then the third model specifies the impact of the cultural dimensions on retail market development (Model 3). The

fourth and final model specifies where, additionally to all previous interrelationships, the direct impact of cultural dimensions on own-label performance is added (Model 4).

**Figure 5. 2: Model Specification**
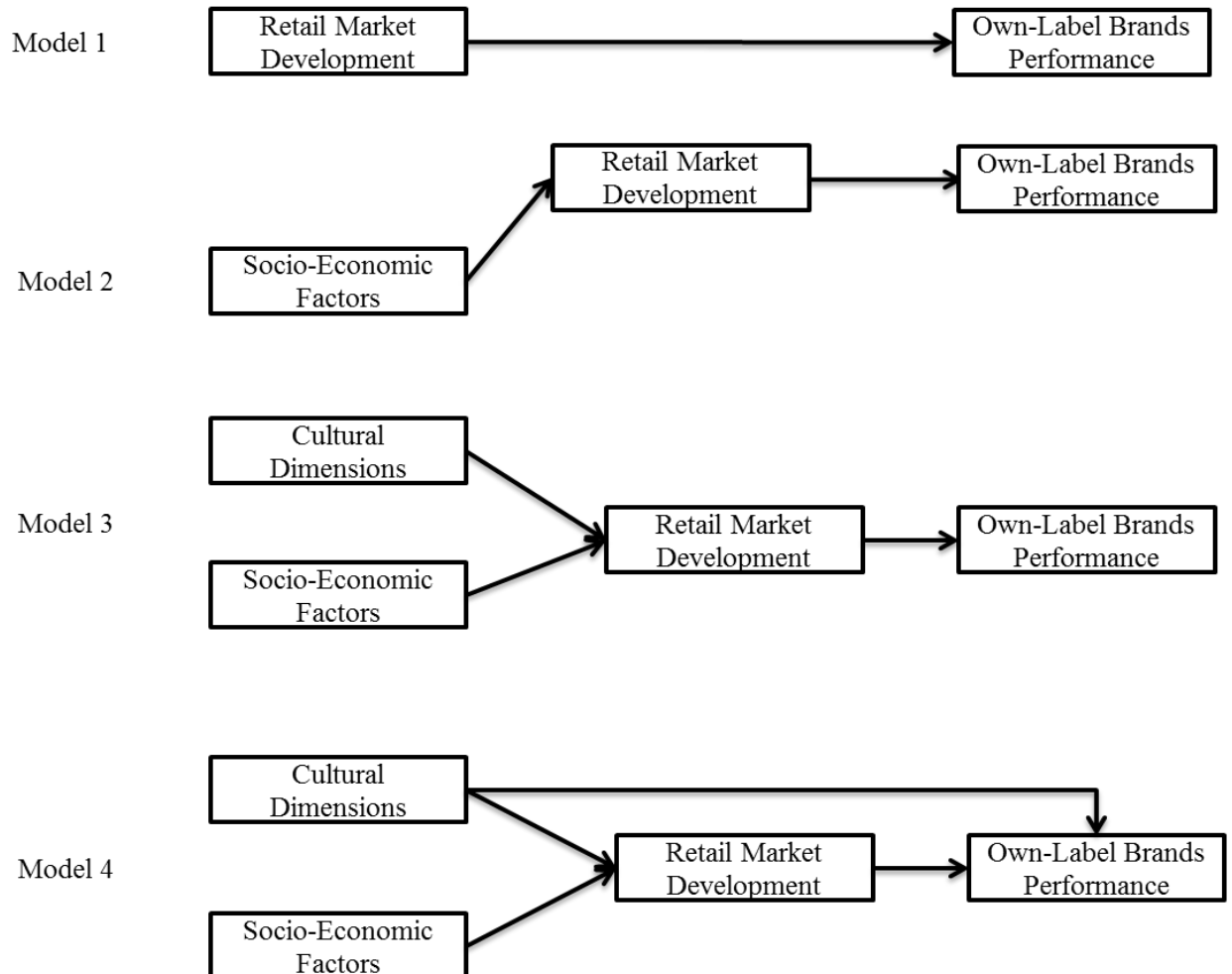


*Model Identification.* Most researchers argue that model identification is not so much as a step in SEM, but a condition they must consider prior to analysing data (Weston and Gore, 2006). However, Chin *et al.,* (2008) emphasised that when identification problem exist, subsequent steps are rendered meaningless. For each of the four specified models, a model estimation procedure was undertaken.

*Model Estimation.* Several types of estimation procedures exist such as maximum likelihood (ML), unweighted or ordinary least squares (ULS or OLS) generalised least squares (GLS)

and asymptotic distribution free (ADF). In the present study, this study opt for the maximum likelihood (ML) model estimation technique. The advantage of this technique is that the model estimation is simultaneous, meaning that the estimates of the model parameters are calculated all at once. It provides valid results although using small sample sizes (Hair *et al.,* 2010). In addition, ML has been the most commonly used approach in SEM because it is quite robust (Hoyle, 1995; Chin *et al.,* 2008).

*Model Evaluation*. Considering the recommendations by several authors (Hair *et al.,* 2010; Byrne, 2010, Schumacker and Lomax, 2004), the model-fit indices used in this study can be explained as follows:

1. Chi-Square goodness-of-fit ($\chi^2 GOF$) test. This test indicates the difference between the two covariance matrices. Therefore, a *p*-value of the $\chi^2$ test indicates that the test is statistically significant ($< .05$) means that the two covariance matrices are statistically different and indicates problem with the model fit. Therefore, this study look for a relatively small $\chi^2$ value (corresponding to a large *p*-value), indicating that there is not any statistically significant difference between the two matrices. This would support the idea that the theoretical framework proposed in this study fits the data.

2. Comparative Fit Index (CFI). CFI is an example of an incremental fit index. It is one of the classes of fit statistics most widely used in SEM (Kline, 2005). CFI is normed so that its values range ranges from 0 to 1. A value closer to 1.0 indicates a better fit (Weston and Gore, 2006). There is threshold value for CFI: a value larger than 0.90 indicates a high level of fit (Hair *et al.,* 2010).

3. Tucker-Lewis Index (TLI). This index can be used to compare alternative models or a proposed model against a null model (Schumacker and Lomax (2004). According to

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Hair *et al.,* (2010) TLI is not normed so that its values cannot fall below 0 or above 1. Typically though, models with good fit have values that approach 1, and a model with a higher value suggests a better fit than a model with a lower value (Hair *et al.,* 2010). A general rule says that an acceptable TLI is a one larger than 0.95 (Schreiber *et al.,* 2006).

4. Root Mean Square Error of Approximation (RMSEA) – According to Hair *et al.,* (2010), RMSEA is one of the most widely used measures that attempts to correct for the tendency of the $\chi^2 GOF$ test statistic to reject models with a large number of observed variables. Thus, it better represents how well a model fits a population, not just a sample used for estimation (Hair *et al.,* 2010). Weston and Gore (2006) suggest the RMSEA as an appropriate index of fit. This index corrects for a model's complexity (Weston and Gore 2006). The question of what is a "good" RMSEA value is debatable however recent study suggests a cut-off value between 0.03 and 0.08 (Hair *et al.,* 2010).

Table 5.1 represents the model-fit-indices used in this study. In order to establish adequate evidence of the model-fit-indices, this study will follow the recommendation of Hair *et al.,* (2010) in using three to four model-fit-indices provides an adequate evidence of model fit.

**Table 5. 1: Model-Fit-Indices and Recommended Thresholds**

| Model-Fit-Indices | Level of Acceptance | General rule for acceptable fit | References |
|---|---|---|---|
| **Absolute Fit Index** | | | |
| $\chi^2$ | *p> .05* | A non-significant $\chi^2$ is indicative of a model that fits the data well | Weston and Gore, (2008) |
| RMSEA | < 0.03 to 0.08 | A lower value RMSEA indicates a better model fit | Hair *et al.,* (2010) |
| **Incremental Fit Index** | | | |
| CFI | $\geq$ 0.95 | The possible range of CFI values is 0 to 1 with higher values indicating better fit | Schreiber *et al.,* (2006) |
| TLI | $\geq$ 0.95 | values can fall below 0 or above 1 but models with good fit have values that approach 1 | Hair *et al.,* (2010); Schreiber *et al.,* (2006) |
| **Parsimony Fit Index** | | | |
| $\chi^2/df$ | | Less than 3.00 is preferred, up to 5.00 is still acceptable | Schumacker and Lomax, (2004) |

*Model Modification*. In the model specification step four different successive models were specified and thus there is no need to perform the last step i.e. model modification. Indeed, comparing each successive model is equivalent to test the first one, then to build the second one and test it, and so on. This model modification step is therefore already included on the previous step.

### 5.4.2 Test of Successive Competing Models

*Endogenous and Exogenous Variables*

As explained earlier, this study used the AMOS-21 Software to perform SEM in order to test simultaneously the hypotheses of the theoretical framework. Four successive models were specified and were estimated using the maximum likelihood (ML) method. The five cultural dimensions: Power Distance (PDI), Individualism/Collectivism (IDV), Masculinity/Feminity (MAS), Uncertainty Avoidance (UAI), and Long-Term Orientation (LTO) were specified as exogenous independent variables. Three socio-economic exogenous control variables (GDP per capita, GINI index and Government expenditure) were added to each structural equation as covariates to control for possible confounds. Retail Market Development and Own-Label Brands' Performance were modelled as endogenous variables, with error terms included for both variables as a part of the model. These error terms were assumed to be uncorrelated with other variables within the model.

*Correlations between Independent Variables*

This thesis allowed correlation between some control (socio-economic) variables and some cultural dimensions. More specifically, this study allowed the following correlations:

GDP↔PDI, GDP↔IDV, GDP↔UAI, GDP↔LTO, GINI↔PDI, GINI↔IDV, GINI↔LTO, GOVExpdt↔PDI. The rationale for allowing these correlations is as follows:

- The first reason is based on theory. De Mooij and Hofstede (2002) argue that culture and socio-economic variables often correlate at country level. This is why it is often recommended to take this natural correlation in data analyses. This leads us to authorise the correlations GDP↔PDI, GDP↔UAI, GDP↔LTO, GINI↔PDI, GINI↔IDV, GINI↔LTO, GOVExpdt↔PDI.

- The second reason is also based on theory. Hofstede (1983) explains that there is a global correlation between two cultural dimensions namely power distance and collectivism (opposite pole of individualism), suggesting that collectivist countries often show large power distance. Therefore, to take this phenomenon into account, we have decided to authorize the correlation PDI↔IDV in the model.

- The last reason is based on methodological constraints. As mentioned earlier, the sample size is very limited (65 countries). This is generally considered as too limited for using SEM. However, because of all the reasons mentioned earlier, we are convinced that SEM is the appropriate analysis to use. Therefore, in order to increase the possibility to find models fitting with the data, we had to allow for the correlations that we naturally find in our data.

### 5.4.2.1. Model 1

Model 1 depict in Figure 5.3. In this model, 13 paths constrain to zero. These 13 paths involve: the five paths between cultural dimensions and own-label brand performance, the five paths between cultural dimensions and retail market development, and finally, the three paths between socio-economic control variables and retail market development. This model only depicts the impact of retail market development on own-label brands performance. As

shown in Table 5.2, Model 1 reports a significant impact of retail market development on own-label brand performance. Model 1 shows a significant Chi-square ($\chi^2$ =137.228, df = 33, $p$ = 0.000) but poor goodness-of-fit indices (CFI = 0.585, TLI = 0.433, RMSEA = 0.222).

**Figure 5. 3: Model 1 Representation**
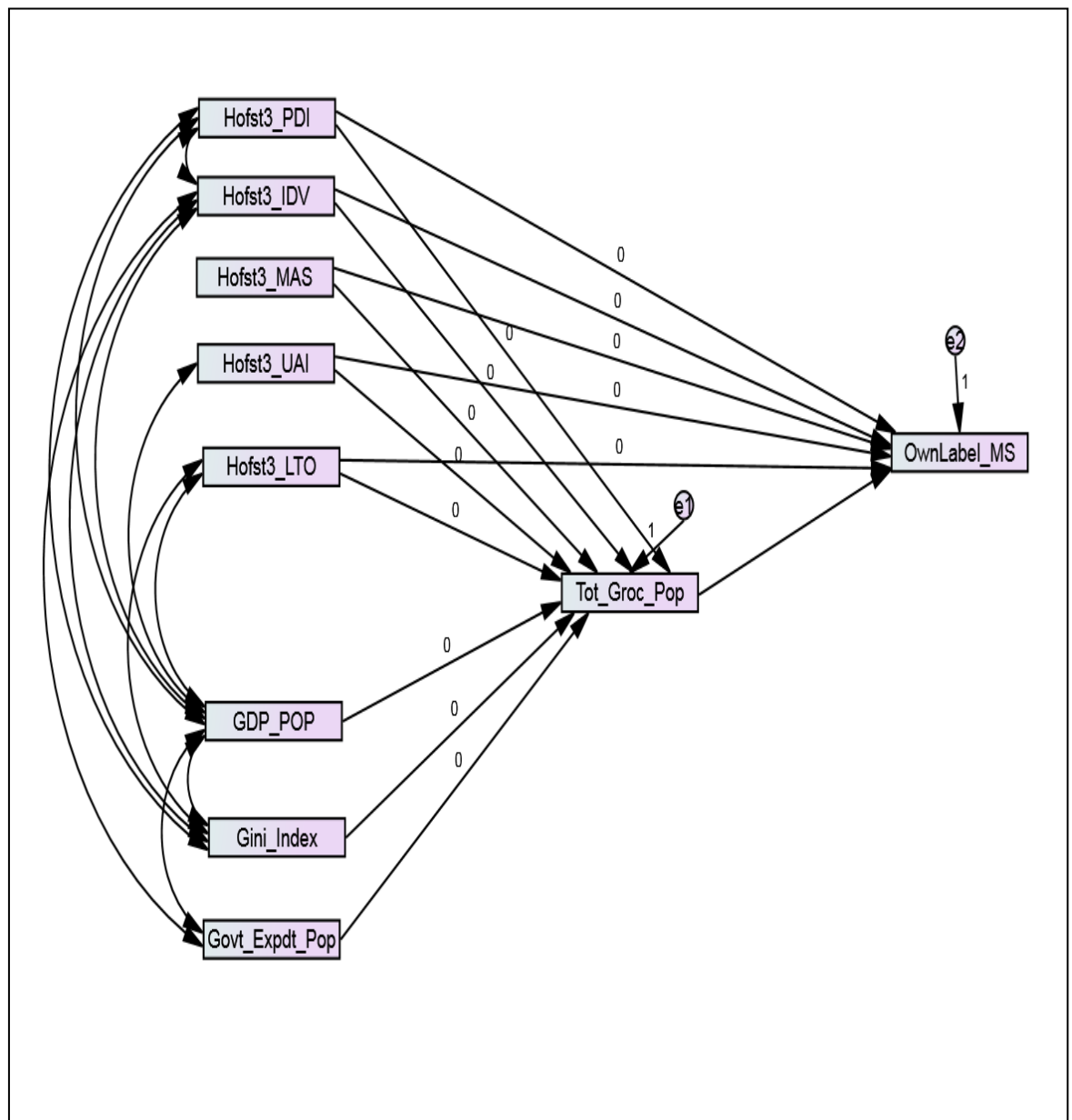
**Table 5. 2: Model 1 Results**

| Path | Coefficient | *t*-value |
|---|---|---|
| **Retail MktDevpt → Own-Label Perf** | **6.674** | **8.077\*\*** |
| Power Distance → Retail MktDevpt | 0 | |
| Individualism → Retail MktDevpt | 0 | |
| Masculinity → Retail MktDevpt | 0 | |
| Uncertainty Avoidance → Retail MktDevpt | 0 | |
| Long-Term Orientation → Retail MktDevpt | 0 | |
| GDP → Retail MktDevpt | 0 | |
| Gini→ Retail MktDevpt | 0 | |
| GovtExpdt→ Retail MktDevpt | 0 | |
| Power Distance → Own-Label Perf | 0 | |
| Individualism → Own-Label Perf | 0 | |
| Masculinity → Own-Label Perf | 0 | |
| Uncertainty Avoidance → Own-Label Perf | 0 | |
| Long-Term Orientation → Own-Label Perf | 0 | |
| **Model Fit Indices** | | ***p - value*** |
| Chi-Square ($\chi^2$) | 137.228 | 0.000 |
| Df | 33 | |
| Comparative Fit Index  (CFI) | 0.585 | |
| Tucker-Lewis Fit Index (TLI) | 0.433 | |
| Root Mean Square Error of Approximation (RMSEA) | 0.222 | |

Notes: *n* = 65; \**p* <0 .05; \*\* *p*<0.01

### 5.4.2.2 Model 2

Model 2 depict in Figure 5.4. In this model, 10 paths constrain to zero. More specifically: five paths between cultural dimensions and own-label brands performance and five paths between cultural dimensions and retail market development. This model represents the impact of socio-economic variables on retail market development and the impact of retail market development on own-label brand performance. As shown in Table 5.3, Model 2 shows a significant impact of retail market development on own-label brand performance. Model 2 also present a significant Chi-square test ($\chi^2$ =73.462, df = 30, *p* = 0.000) but poor goodness-of-fit indices (CFI = 0.827, TLI = 0.740, RMSEA = 0.150).

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**Figure 5. 4: Model 2 Representation**
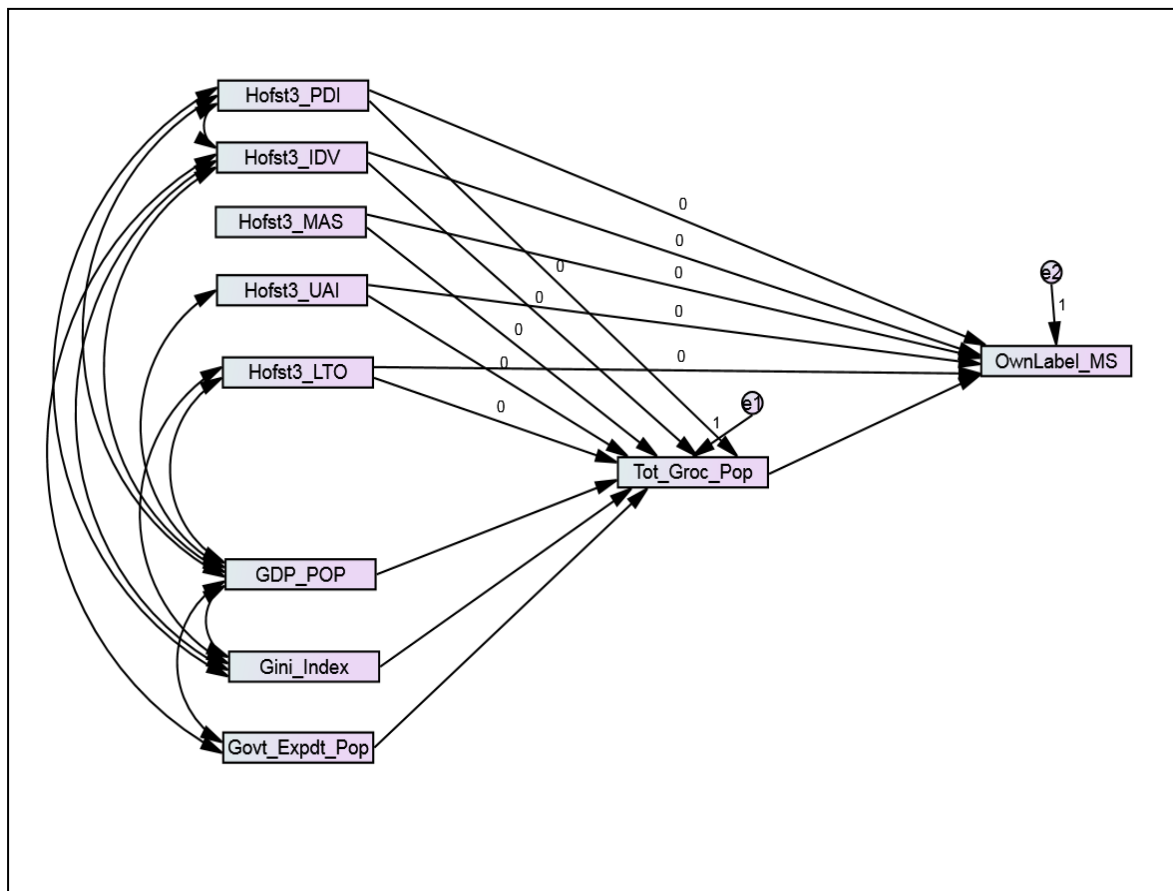


**Table 5. 3: Model 2 Results**

| Path | Coefficient | *t*-value |
|---|---|---|
| **Retail MktDevpt → Own-Label Perf** | **6.674** | **7.841**\*\* |
| Power Distance → Retail MktDevpt | 0 | |
| Individualism → Retail MktDevpt | 0 | |
| Masculinity → Retail MktDevpt | 0 | |
| Uncertainty Avoidance → Retail MktDevpt | 0 | |
| Long-Term Orientation → Retail MktDevpt | 0 | |
| **GDP → Retail MktDevpt** | **0.043** | **6.723**\*\* |
| **Gini→ Retail MktDevpt** | **-0.041** | **-3.560**\*\* |
| GovtExpdt→ Retail MktDevpt | 0.000 | -0.300 |
| Power Distance → Own-Label Perf | 0 | |
| Individualism → Own-Label Perf | 0 | |
| Masculinity → Own-Label Perf | 0 | |
| Uncertainty Avoidance → Own-Label Perf | 0 | |
| Long-Term Orientation → Own-Label Perf | 0 | |
| **Model Fit Indices** | | *p-value* |
| Chi-Square ($\chi^2$) | 73.462 | 0.000 |
| Df | 30 | |
| Comparative Fit Index  (CFI) | 0.827 | |
| Tucker-Lewis Fit Index (TLI) | 0.740 | |
| Root Mean Square Error of Approximation (RMSEA) | 0.150 | |

Notes: *n* = 65; *\*p* <0 .05; \*\* *p*<0.01

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**5.4.2.3 Model 3**

Model 3 is depicting in Figure 5.5 In this model, five paths constrain to zero. More specifically, these paths are the five paths between cultural dimensions and own-label brands performance. In other words, this model represents the impact of the five cultural dimensions on retail market development, controlled by the three socio-economic variables, and the impact of retail market development on own-label brand performance. As shown in Table 5.4, Model 3 shows a significant impact of retail market development on own-label brand performance, and significant impacts of three cultural dimensions: PDI, IDV, & UAI on retail market development. Model 3 also reports a non-significant Chi-square test ($\chi^2$ =33.939, df = 25, $p$ = 0.109) and reasonably good goodness-of-fit indices (CFI = 0.964, TLI = 0.936, RMSEA = 0.075).

**Figure 5. 5 Model 3 Representation**
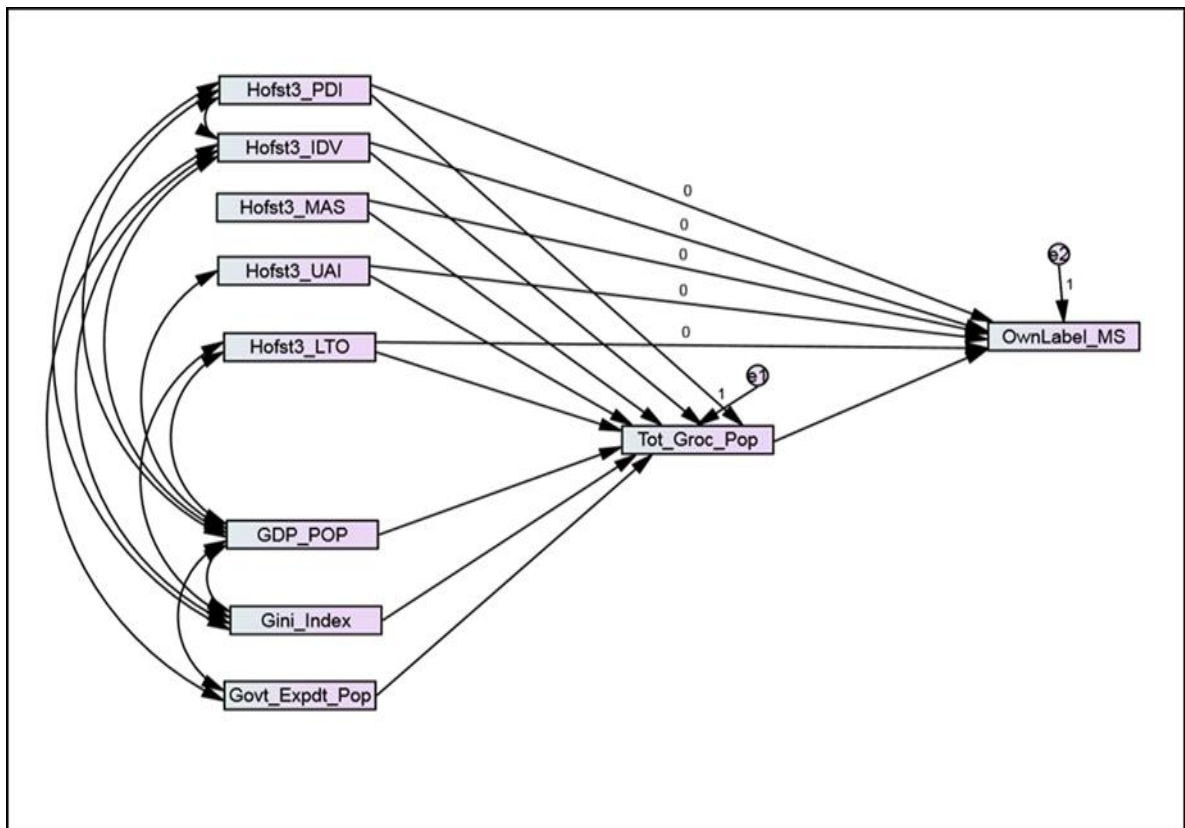
**Table 5. 4: Model 3 Results**

| Path | Coefficient | *t*-value |
|---|---|---|
| **Retail MktDevpt → Own-Label Perf** | **6.674** | **8.149\*\*** |
| **Power Distance → Retail MktDevpt** | **-0.009** | **-2.575\*** |
| **Individualism → Retail MktDevpt** | **0.017** | **4.618\*\*** |
| Masculinity → Retail MktDevpt | -0.004 | -1.189 |
| **Uncertainty Avoidance → Retail MktDevpt** | **0.013** | **4.718\*\*** |
| Long-Term Orientation → Retail MktDevpt | -0.002 | -0.725 |
| **GDP → Retail MktDevpt** | **0.032** | **5.571\*\*** |
| Gini→ Retail MktDevpt | -0.016 | -1.654 |
| GovtExpdt→ Retail MktDevpt | 0.000 | 0.635 |
| Power Distance → Own-Label Perf | 0 | |
| Individualism → Own-Label Perf | 0 | |
| Masculinity → Own-Label Perf | 0 | |
| Uncertainty Avoidance → Own-Label Perf | 0 | |
| Long-Term Orientation → Own-Label Perf | 0 | |
| **Model Fit Indices** | | *p-value* |
| Chi-Square ($\chi^2$) | 33.939 | 0.109 |
| Df | 25 | |
| Comparative Fit Index  (CFI) | 0.964 | |
| Tucker-Lewis Fit Index (TLI) | 0.936 | |
| Root Mean Square Error of Approximation (RMSEA) | 0.075 | |

Notes: *n* = 65; *\*p* <0 .05; \*\* *p*<0.01

### 5.4.2.4 Model 4

Model 4 is depicting in Figure 5.6. In this model, all paths estimate freely. In other words, this model represents the entire theoretical framework: the impact of cultural dimensions on retail market development and on own-label brand performance, controlled by the socio-economic variables. As shown in Table 5.5, Model 4 report a significant impact of retail market development on own-label brand performance, and significant impacts of three cultural dimensions: PDI, IDV & UAI on retail market development. In addition, this model presents a significant relationship on the direct impact of two cultural dimensions: IDV & LTO on own-label brands performance.  Model 4 also find excellent overall levels of fit with the data. Additionally, this model discover a non-significant Chi-square test ($\chi^2$ =22.852, df = 20, *p* = 0.296) and goodness-of-fit indices (CFI = 0.989, TLI = 0.974, RMSEA = 0.047) well above the cut-off point (Hair *et al.,* 2010).

**Figure 5. 6: Model 4 Representation**
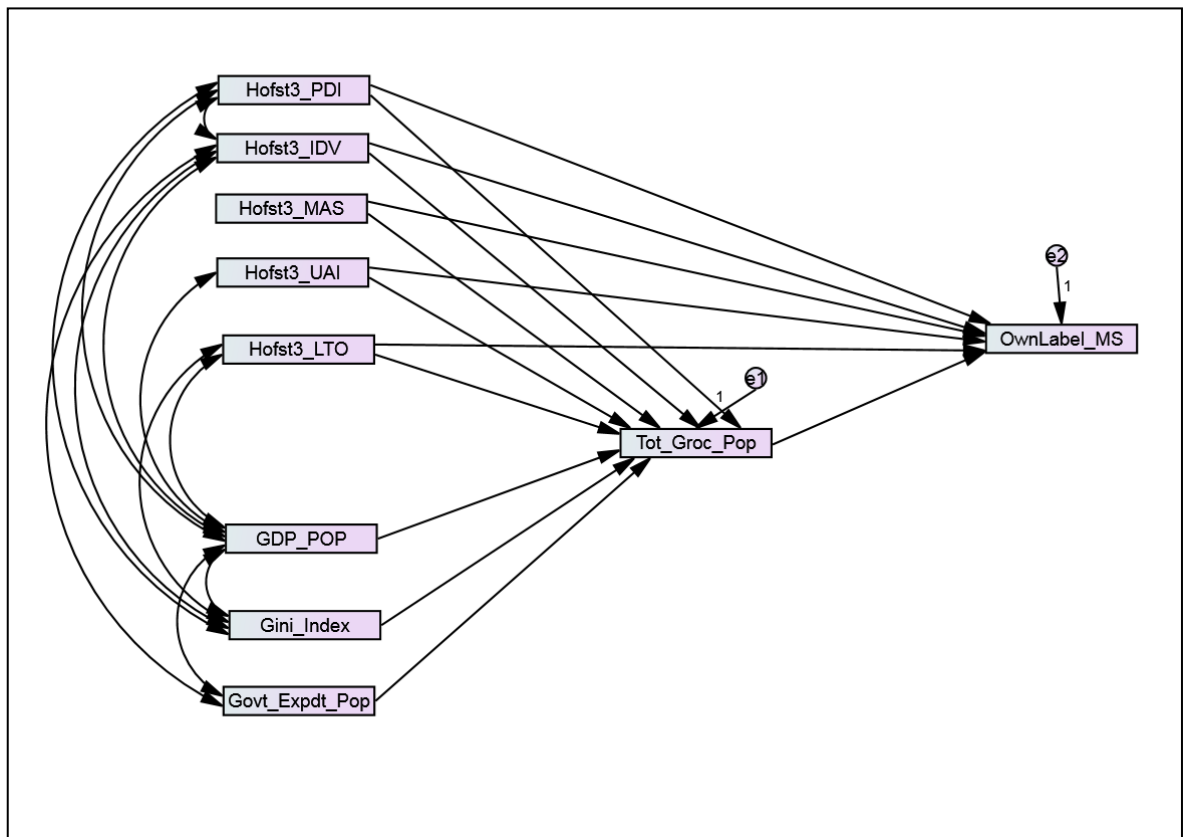


**Table 5. 5: Model 4 Results**

| Path | Coefficient | *t*-value |
|---|---|---|
| **Retail MktDevpt → Own-Label Perf** | **4.132** | **3.050*** |
| **Power Distance → Retail MktDevpt** | **-0.009** | **-2.575*** |
| **Individualism → Retail MktDevpt** | **0.017** | **4.618**** |
| Masculinity → Retail MktDevpt | -0.004 | -1.189 |
| **Uncertainty Avoidance → Retail MktDevpt** | **0.013** | **4.718**** |
| Long-Term Orientation → Retail MktDevpt | -0.002 | -0.724 |
| **GDP → Retail MktDevpt** | **0.032** | **5.571*** |
| Gini→ Retail MktDevpt | -0.016 | -1.654 |
| GovtExpdt→ Retail MktDevpt | 0.000 | 0.475 |
| Power Distance → Own-Label Perf | -0.019 | -0.381 |
| **Individualism → Own-Label Perf** | **0.122** | **2.204*** |
| Masculinity → Own-Label Perf | 0.022 | 0.507 |
| Uncertainty Avoidance → Own-Label Perf | -0.004 | -0.096 |
| **Long-Term Orientation → Own-Label Perf** | **0.075** | **2.127*** |
| **Model Fit Indices** | | *p-value* |
| Chi-Square ($\chi^2$) | 22.852 | 0.296 |
| Df | 20 | |
| Comparative Fit Index  (CFI) | 0.989 | |
| Tucker-Lewis Fit Index (TLI) | 0.974 | |
| Root Mean Square Error of Approximation (RMSEA) | 0.047 | |

Notes: *n* = 65; **p* <0 .05; ** *p*<0.01

## 5.4.3 Comparison of Successive Competing Models

Table 5.6 recapitulates the results provided by the four tested models. As described above, Model 4 displays the best results in terms of fit indices. However, it is necessary to determine if this difference in terms of fit indices is significant. Therefore, the next step of the analysis is to compare these four models in order to determine which one provides the better fit with the data.

### Table 5. 6: Results Recapitulation

| Path | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| **Retail MktDevpt → Own-Label Perf** | **6.674** | **6.674** | **6.674** | **4.132** |
| | **(8.077)\*\*** | **(7.841)\*\*** | **(8.149)\*\*** | **(3.050)\*** |
| **Power Distance → Retail MktDevpt** | 0 | 0 | **-0.009** | **-0.009** |
| | | | **(-2.575)\*** | **(-2.575)\*** |
| **Individualism → Retail MktDevpt** | 0 | 0 | **0.017** | **0.017** |
| | | | **(4.618)\*\*** | **(4.618)\*\*** |
| Masculinity → Retail MktDevpt | 0 | 0 | -0.004 | -0.004 |
| | | | (-1.189) | (-1.189) |
| **Uncertainty Avoidance → Retail MktDevpt** | 0 | 0 | **0.013** | **0.013** |
| | | | **(4.718)\*\*** | **(4.718)\*\*** |
| Long-Term Orientation → Retail MktDevpt | 0 | 0 | -0.002 | -0.002 |
| | | | (-0.725) | (-0.724) |
| **GDP → Retail MktDevpt** | 0 | **0.043** | **0.032** | **0.032** |
| | | **(6.723)\*\*** | **(5.571)\*\*** | **(5.571)\*** |
| **Gini → Retail MktDevpt** | 0 | **-0.041** | -0.016 | -0.016 |
| | | **(-3.560)\*\*** | (-1.654) | (-1.654) |
| GovtExpdt→ Retail MktDevpt | 0 | 0.000 | 0.000 | 0.000 |
| | | (-.300) | (0.635) | (0.475) |
| Power Distance → Own-Label Perf | 0 | 0 | 0 | -0.019 |
| | | | | (-0.381) |
| **Individualism → Own-Label Perf** | 0 | 0 | 0 | **0.122** |
| | | | | **(2.204)\*** |
| Masculinity → Own-Label Perf | 0 | 0 | 0 | 0.022 |
| | | | | (0.507) |
| Uncertainty Avoidance → Own-Label Perf | 0 | 0 | 0 | -0.004 |
| | | | | (-0.096) |
| **Long-Term Orientation → Own-Label Perf** | 0 | 0 | 0 | **0.075** |
| | | | | **(2.127)\*** |
| **Model Fit Indices** | | | | |
| Chi-Square ($\chi^2$) | 137.228 | 73.462 | 33.939 | 22.852 |
| Df | 33 | 30 | 25 | 20 |
| CFI | 0.585 | 0.827 | 0.964 | 0.989 |
| TLI | 0.433 | 0.740 | 0.936 | 0.974 |
| RMSEA | 0.222 | 0.150 | 0.075 | 0.047 |

Notes: *n* = 65; *t-values* in brackets; *$p$ <0 .05; ** $p$<0.01

According to Hair *et al.,* (2010) a powerful way of comparing alternative models is to compare their chi-square. Models can be compared if they are nested. A model is nested

within another model if it contains the same variables and can be formed from the other model by altering the relationships, such as either adding or deleting paths.

Adopting Hair *et al.,'s* (2010) chi-square difference test technique, the four alternative models were estimated and sequentially compared. According to Sousa and Bradely (2008), an additional path between two variables in a model should lead to a significant decrease of the chi-square. In that case, the additional path is considered as improving the model fit. On the contrary, if the decrease in the chi-square is not significant, it would mean that the additional path does not improve the model fit and should be removed in order to adopt the more parsimonious of the nested models (Sousa and Bradely, 2008). The chi-square difference between two models is considered as significant if it is superior to the value of the chi-square distribution for a number of degrees of freedom equal to the difference of degrees of freedom between both models (for a given significance level).

Table 5.7 displays the different Chi-Square and number of degrees of freedom (df) for each model. It also provides the difference between successive models' chi-square ($\Delta\chi^2$) and degrees of freedom ($\Delta$df). It finally indicates the minimum value that this difference has to reach to be significant (significance threshold) and the conclusion in terms of fit improvement: if the chi-square difference is higher than the significance threshold, the model with additional paths will be considered as having a better fit. This research adopt a significance level of 5%.

**Table 5. 7: Sequential Chi-Square Difference Tests for Nested Models (N = 65)**

| Model | $\chi^2$ | (df) | $\Delta\chi^2$ | ($\Delta$df) | Significance Threshold (5%) $= \chi^2_{.050}(\Delta df)$ | Fit improvement |
|---|---|---|---|---|---|---|
| Model 1 | 137.228 | 33 | - | - | - | - |
| Model 2 versus Model 1 | 73.462 | 30 | 63.766 | 3 | 7.815 | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| Model 3 versus Model 2 | 33.939 | 25 | 39.523 | 5 | 11.070 | Yes |
| Model 4 versus Model 3 | 22.852 | 20 | 11.087 | 5 | 11.070 | Yes |

Results indicate a better fit for Model 2 compared to Model 1. Indeed, the chi-square difference ($\Delta\chi^2$ =63.766; $\Delta$df = 3) is higher than the significance threshold ( $\chi^2_{.050}(3)$ = 7.815). Therefore, the three paths (representing the impact of the three socio-economic variables on Retail Market Development) that were set to 0 in Model 1 and that became free in Model 2 bring a significant fit improvement.

Results also indicate better fit indices for Model 3 compared to Model 2. Indeed, the chi-square decrease between Models 2 and 3 ($\Delta\chi^2$ = 33.939; $\Delta$ df = 5) is higher than the significance threshold ( $\chi^2_{.050}(5)$ = 11.070). Therefore, the five paths (representing the impact of the five cultural dimensions on Retail Market Development) that were set to 0 in Model 2 and that became free in Model 3 bring a significant fit improvement.

Finally, results indicate a better fit for Model 4 compared to Model 3. Indeed, the chi-square decrease between Models 3 and 4 ($\Delta\chi^2$ =11.087; $\Delta$df = 5) is higher than the significance threshold ( $\chi^2_{.050}(5)$ = 11.070). Therefore, the five paths (representing the direct impact of the five cultural dimensions on Own-Label Brand Performance) that were set to 0 in Model 3 and that became free in Model 4 bring a significant fit improvement.

Therefore, the comparison between the four models shows that Model 4 is the best model in terms of fit indices. This shows that the inclusion of cultural dimensions in the model as well as their impact on retail market development and own-label performance significantly

improves the fit indices of the model and the explanation of the level of own-label brands performance.

**5.4.4 Results of Hypotheses Testing**

The theoretical model proposes three different relationships: 1) the impact of retail market development on own-labels performance; 2) the impact of cultural dimensions on retail market development and 3) the impact of cultural dimensions on own-label brands performance. To verify the hypotheses this study rely on the last model tested, Model 4. Indeed, this is the model that provides the best fit indices. The different parameters are shown in Table 5.5.

First, a significant impact of retail market development on own-label brand performance (path coefficient = 4.132; $p<0.05$) was found. This confirms H1 that suggests that the greater the size of the retail market i.e. developed market, the higher the performance of own-label brands.

Further, regarding the relationships between cultural dimensions and retail market development, the following results: power distance significantly and negatively impacts retail market development (path coefficient = -0.009; $p<0.05$) was discovered. This result indicates that a country having a larger level of power distance is less prone to have a highly developed retail market. This confirms H2b. The results also showed that individualism significantly and negatively impacts the development of retail market (path coefficient = -0.017; $p<0.01$). This means that an individualistic country is more prone to have a more developed retail market than a collectivist country. This confirms H3b. Further, the results of this study show that there is a significant and positive relationship between uncertainty avoidance and retail market development (path coefficient = 0.013; $p<0.01$). This result confirms H5b. However,

the impact of masculinity and long-term orientation on retail market development is not significant, showing that respectively H4b and H6b are not supported.

Moreover, regarding the relationships between culture and own-label brands performance, the results showed that individualism significantly impacts own-label brands performance (coefficient path = 0.122; $p<0.05$). This suggests that individualistic countries are more prone to accept own-label brands than their collectivist counterparts. This confirms H3a. In addition, there is a significant positive relationship between long-term orientation and own-label brands' performance (coefficient path = 0.075; $p<0.05$). This result indicates that a country having a long-term oriented culture adopts own-label brands more easily than a country with short-term orientation culture. This confirms H6a. However, the impact of power distance, masculinity and uncertainty avoidance on own-label brands' performance is not significant, showing that H2b, H4b and H5b are not supported. Table 5.8 presents summary results of our hypotheses testing.

**Table 5. 8: Hypotheses Validation Summary**

| Variable | Hypothesis | Hypothesis Statement | Result |
|---|---|---|---|
| Retail Market Development | H1 | There is a positive relationship between retail market development and the own-labels performance. | Confirmed |
| Power Distance | H2a | There is a negative relationship between power distance and own-labels performance | Not-confirmed |
| | H2b | There is a negative relationship between power distance and retail market development | Confirmed |
| Individualism | H3a | There is a positive relationship between individualism and own-labels performance | Confirmed |
| | H3b | There is a positive relationship between individualism and retail market development | Confirmed |
| Masculinity | H4a | There is a negative relationship between masculinity and own-labels performance | Not-confirmed |
| | H4b | There is a negative relationship between masculinity and retail market structure | Not-Confirmed |
| Uncertainty Avoidance | H5a | There is a negative relationship between uncertainty avoidance and own-labels performance | Not-confirmed |
| | H5b | There is a negative relationship between uncertainty avoidance and retail market development. | Confirmed |
| Long-Term Orientation | H6a | There is a negative relationship between long-term orientation and own-labels performance | Confirmed |
| | H6b | There is a negative relationship between long-term orientation and retail market development. | Not-confirmed |

**5.5 Summary Remarks**

This chapter has discussed the structural equation modelling (SEM) methodology. In particular, this chapter explained the importance of using SEM in marketing research as well as the different steps that SEM composes. In addition, it explained why SEM is the appropriate method for this study such as the choice of statistical software. Further, this chapter presented and compared the different successive models that were built as well as the results of the hypotheses testing. Now, Chapter Six presents the discussion of the results and provides the theoretical and managerial implication.

# Chapter 6

# Discussion

## 6.1 Introduction

The objective of this thesis was to explore the impact of Hofstede's five cultural dimensions (power distance, individualism, masculinity, uncertainty avoidance and long-term orientation) on own-label brand performance by taking into account retail market development and socio-economic variables. This chapter presents a summary and a discussion of the results. It is divided into four key sections. **Section 6.2** summarises the findings of the study. **Section 6.3** presents a detailed discussion of a selected number of results that this study found particularly interesting. **Section 6.4** highlights the key contributions of the research, as well as the theoretical and managerial implications. Finally, **Section 6.5** presents the main limitations of the study and recommends some potential areas of future research. Figure 6.1provides a visual representation of the organisation of this chapter.

**Figure 6. 1: Organisation of Chapter 6**

| **6.2 Summary of Research** |
| :---: |
| Development of conceptual framework and research method<br>Summary of the results |

| **6.3 Detailed Discussion** |
| :---: |
| A general validation of contingency theory in the context of culture and retail market<br>The importance of incorporating retail market in the study of culture and own-label brands |

| **6.4 Contribution and Implications** |
| :---: |
| Theoretical contributions<br>Methodological contributions<br>Practical contributions |

| **6.5 Limitations and Future Research** |
| :---: |
| Theoretical limitations<br>Methodological limitations |

**6.2 Research Summary**

**6.2.1 Development of the Conceptual Framework and Research Method**

Based on a thorough review of the literature, this study developed a conceptual framework that hypothesises three main types of relationships: a) the impact of retail market development on own-label brand performance; b) the impact of the five cultural dimensions; power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance (UAI) and long-term orientation (LTO) on retail market development; and finally c) the direct impact of the five cultural dimensions on own-label brand performance.

To build a conceptual framework, this thesis relied on a contingency theory that suggests that markets and firms, as well as their respective structure and performance, are dependent on the context in which they operate. According to numerous past studies, culture represents an important element of this context upon which markets and firms are contingent. This is why this study hypothesises that culture would impact on the way that retail market develops itself, in terms of the size of the market.

To measure national culture, this thesis chose to use the model developed by Hofstede (1980, 2001), that defines culture using five dimensions (PDI, IDV, MAS, UAI, & LTO). This choice was made for four main reasons. First, empirically, Hofstede's cultural dimensions are the most salient ones, and proved to be relevant and robust in numerous marketing applications. Second, practically, Hofstede's model represents the source for which data about dimensions' scores are available for the highest number of countries. Third, methodologically, Hofstede's dimensions are independent from each other, and present a parsimonious description of culture, which is advantageous when applying regression analysis. Fourth, conceptually, the level of analysis of the study corresponds to the level of analysis for which Hofstede's model has been developed: the country level analysis. Additionally, to measure retail market development, this study used a variable called *size of the market,* which has been highlighted in past research as appropriately depicting retail market , and to be linked to own-label brand performance.

Furthermore, regarding data collection, this study relied on secondary data sources. The researcher collected the scores of Hofstede's dimensions for each country from the database available in the cross-culture text book entitled "Cultures and Organizations: Software of the

Mind: Intercultural Cooperation and Its Importance for Survival" (Hofstede *et al.,* 2010). In addition, information regarding retail market development and own-label brands performance was collected from the Euromonitor database. This study focused on the grocery retail market. Furthermore, for control (socio-economic) variables: GDP per capita, government expenditure and Gini index were collected from the Euromonitor database. The study built a database, gathering information on all these variables for 65 countries, representing all continents.

### 6.2.2 Summary of the Results

To test the hypotheses, Structural Equation Modelling (SEM) was performed using the software AMOS version 21. In the SEM, maximum likelihood (ML) method was applied to test the relationships between the constructs: culture, retail market development and own-label brands performance. Employing the chi-square difference test technique, four alternative models were estimated and sequentially compared. The comparison between the four models shows that *Model 4* was the best model in terms of fit indices. This shows that the inclusion of cultural dimensions on the model improves the understanding of the way own-label brands perform, as well as how they are impacted upon by retail market development.

The results of the fit model (Model 4) show a significant positive relationship between retail market development and own-label brand performance. Results also show that three cultural dimensions (PDI, IDV and UAI) significantly impact on retail market development. To be more specific, consistently with the hypotheses, retail market development is positively impacted by individualism and negatively impacted by power distance and uncertainty avoidance. However, this study did not find any significant relationships between the cultural dimensions of masculinity and long-term orientation, and retail market development.

Finally, the results of this study show a positive direct impact on own-label brand performance for only two cultural dimensions: individualism and long-term orientation. These relationships are consistent with the hypotheses: positive for individualism, and negative for long-term orientation. However, this direct impact is not significant for the three other cultural dimensions (power distance, masculinity and uncertainty avoidance).

## 6.3 Discussion

This section presents a detailed discussion of some specific parts of the methodology, and of results that could be considered particularly interesting. Firstly, what the results tell us about underlying theory that is used to develop a conceptual framework: the contingency theory will be discussed. Then, the insights given by the results regarding some specific variables, such as retail market development, or the different cultural dimensions will be dealt with. Subsequently, a discussion about the methodology, and specifically the different ways that were used to test the competing models, the kind of data used, or the way of comprehending the concept of national culture will be presented.

## 6.3.1 A General Validation of the Contingency Theory in the Context of Culture and Retail Market

This thesis relies on contingency theory to build a conceptual framework, arguing that culture, as a contextual element within a country, influences the way firms within the retail market behave, which in turn, influences their performance. From the results, it can be stated that, even if all the hypotheses have not been validated, the expectations based on this theory have been generally confirmed. Indeed, this study identified a significant impact of three cultural dimensions (power distance, individualism and uncertainty avoidance) on the development of the retail market, which in turn influences the performance of retailers in terms of their own-

label strategy. Moreover, this research also identified the impact of two of those cultural dimensions (individualism and long-term orientation) on own-label performance. This shows that there clearly seems to be a phenomenon that is consistent with contingency theory's predictions: culture (an element of contingency) impacts on national retailers and their market, which in turn affects their performance. In terms of interpretation, the significant relationships discovered in this research can be interpreted as a confirmation of the validity of contingency theory in the context of culture and the retail market, as well as a confirmation of the hypotheses' rationalization. For instance, the results find a positive relationship between a larger retail market dominated by concentrated and modern retailers, and the performance of the own-label brands of these retailers. This finding was not surprising, as it is consistent with the literature review and the hypothesis justification developed earlier. To recall a few examples of past studies, Rubio and Yague (2009) reported that retail market concentration enables retailers to benefit from economies of scale, whilst Steenkamp and Dekimpe (1997) have shown that increased concentration in retailing enables retail chains to better develop their own-label brands. Erdem *et al.,* (2004) stated that, if retail market concentration is important, it is not only this factor that impacts on own-label brand performance: the presence of modern retail outlets, such as hard discounters (e.g., Aldi and Lidl in Europe), who mainly offer own-label brands, also contributes significantly to the growth of own-label brands (Serbi and Zaccour, 2013).

Similarly, the rationalisation of the hypotheses regarding the impact of power distance, individualism and uncertainty avoidance on retail market development is confirmed by the results of this study. The results of these dimensions will be discussed more in depth later in this chapter.

**6.3.2 The Importance of Incorporating Retail Market into the Study of Culture and Own-Label Brand Performance**

If the hypotheses linked to contingency theory are generally validated (impact of culture on retail market and own-label brand performance), it seems that the hypotheses representing the direct impact of culture on own-label brand performance are, on the contrary, generally not validated. Indeed, from the five cultural dimensions studied, only two (individualism and long-term orientation) have been found to have a significant and direct relationship with own-label brand performance. The remaining three other dimensions (power distance, masculinity and uncertainty avoidance) have no direct impact on the performance of own-labels. This seems to show that, in the context of this study, it is absolutely fundamental to take into account the role of the retail market. If this had not been done in the research, it could have mistakenly concluded the absence of the relationship between both variables where, in reality, this relationship exists.

For instance, this study hypothesised a negative relationship between power distance, cultural dimension and own-label brand performance. Indeed, in large, power distant countries, global brands are more important to consumers in order to acquire a higher status (De Mooij and Hofstede, 2010). Moreover, own-label brands, which are not very well known and are low-priced and often considered as of lower quality, are not likely to enhance one's status (Shannon and Mandhachitara, 2005). However, the study has found insignificant results. The rationale for the hypotheses regarding the direct impact of masculinity and uncertainty avoidance will not be discussed in detail, but, similarly, the discovery of these two dimensions is not supported by the results.

**6.3.3 The Predominant Role of Individualism and Long-Term Orientation**

Among the five cultural dimensions that have been studied, only individualism is particularly influential on both retail market development and own-label brand performance, in

accordance with contingency theory. Results regarding the direct impact of individualism on own-label brand performance are consistent with previous research. For instance, many studies such as De Mooij and Hofstede (2002), Lupton *et al.,* (2010), and Shannon and Mandhachitara, (2005) report that own-label brands are more successful in individualistic cultures rather than in collectivistic ones. This could indicate that individualistic consumers are more brand-savvy (Sun *et al.,* 2004). Brand-savvy shoppers have been found to be more idiocentric (Dutta-Bergman and Wells 2002). The term 'idiocentric' is a personality variable, corresponding to individualism (Triandis 2011). Idiocentric individuals are more satisfied with their lives, more financially satisfied and more optimistic, more likely to be opinion leaders, more innovative in terms of product usage, and more impulsive in relation to buying (Sun *et al.,* 2004). Highly impulsive buyers are likely to be unreflective in their thinking, to be emotionally attracted to the object, and to desire immediate gratification (Hoch and Loewenstein, 1991). This may be the case in individuals who scored high in individualism, and pursue their individual goals, make their own purchases and are more likely to stick to their adopted brands, regardless of outside influence (Lam *et al.,* 2009). Thus, consumers who scored highly on individualism were less likely to switch brands (Lam, 2007). Consequently, it can be concluded that there is a significant positive relationship between individualism and the performance of own-label brands in terms of market share. In particular, the performance of own-label brands is higher in individualistic countries than it is in collectivistic countries.

Moreover, past studies show that less individualistic (collectivistic) countries are more inclined to develop a large number of small traditional retailers, because these are considered to be a part of their social fabric and are also perceived as a part of the social group (i.e., Earley and Gibson 1998, Khare 2013). In less individualistic cultures, personal relationships and socialisation would be important in generating consumer loyalty and store preference

(Ozedmir and Hewett 2010). This could be another key factor, that there is more likelihood of large numbers of small traditional retailers developing in less individualistic countries.

This research, not surprisingly, indicates that a country loyal to traditional food stores, that typically carry only one line of products, and have a small sales volume, negatively impacts on retail market development.

Regarding long-term orientation, the role of this dimension partially confirms the rationale we built with the use of contingency theory. Long-term orientation is significantly related to own-label brand performance but not to retail market development. This is consistent with the study by De Mooij and Hofstede (2002), which reports that consumers from long-term orientation countries tend to prefer well-known (i.e. national or global) brands. There may be various explanations for this phenomenon. Firstly, for instance, new product adoption is slower in long-term orientation cultures than in short-term oriented countries (see Yalchinkaya, 2008). This would be due to the impact of consumers' frugality (Lastovicka *et al.,* 1999). Frugality has been associated with delayed economic gratification (Bearden *et al.,* 2006). This may have some important consequences, such as the fact that new and untested brands with little or no past history are likely to be viewed with caution by individuals in long-term orientation culture countries, who are more likely to purchase national or global brands. A second possible explanation is that low performance of own-label brands in long-term orientation culture countries may be related to compulsive buying behaviour. Compulsive buying is suggestive of limited thought (i.e. conscious planning) prior to purchase decisions (Faber and O'Guinn 1992). It can be concluded that higher levels of frugality, and lower levels of compulsive buying deter people from purchasing own-label brands in countries which have a long-term oriented culture.

**6.3.4 The Role of Uncertainty Avoidance Cultural Dimension**

The results concerning uncertainty avoidance seem a little more difficult to interpret. Indeed, according to past research, this dimension was supposed to be one of the most important influencers of own-label brand performance. To put it simply, literature argues that uncertainty avoidant cultures tend to be more risk-averse (Bontempo *et al.,* 1997), and risk-averse consumers tend to expect more losses associated with the purchase of non-established brands than low risk-averse consumers (Bao *et al.,* 2003, Erdem *et al.,* 2004). Moreover, Hofstede (1980) noted that high uncertainty avoidance cultures are often much more nationalistic and ethnocentric, and would presumably be less open to modern retailers and more likely to favour local retailers (Straughan and Miller, 2001). It is therefore hypothesised that a negative direct relationship exists between uncertainty avoidance and own-label brands performance, as well as retail market development. However, the results partially contradicted this hypothesis: this study found no impact of uncertainty avoidance on own-label brand performance. The results did show that there is a significant impact of uncertainty avoidance on retail market development.

The results of this thesis can suggest different possibilities available for interpreting the absence of insignificant results between uncertainty avoidance culture and own-label brand performance. First, this study is positioned at the country level, and not the level of the individual. Therefore, it is possible that what is true for individuals (I am risk averse so I chose a well-established brand) is not true at the country level, where lots of other mechanisms and variables have to be taken into account. Second, it has to be noted that some research does not find any impact of uncertainty avoidance on propensity to purchase own-label brands. This is the case, for example, of Mieres *et al.,* (2006) or Sebri and Zaccour (2013), who show that one of the main dimensions of uncertainty behaviour, called the social risk, is not linked at all to the consumption of own-label brands. It is difficult to assert with

high certainty why this study did not find more significant results on this dimension. This may be a subject for future research.

**6.3.5 The Interest of Testing Successive Competing Models Employing SEM Technique**

Employing SEM technique, this thesis tested successive competing models to test hypotheses of the conceptual framework. To test the successive competing models, the sequential Chi-square difference test (SCDT) was employed. The main objective of this was to determine whether or not culture provides a significantly greater explanatory power than other theoretically based models. In this procedure, two nested models are compared, by treating the difference of their Chi-square test statistics, as a Chi-square statistic with degrees of freedom equal to the difference between the degrees of freedom for the individual Chi-squares (Steiger, 1985). By performing this comparison between models, this study does not only show the impact of culture on retail market development and own-label performance, but also shows the exact contribution including culture makes, as opposed to not including it.

Indeed, the SCDT may also be repeated in order to compare more than two nested models. In this regard, four alternative models were estimated and sequentially compared. The comparison between the four models shows that Model 4 is the best model in terms of fit indexes. This shows that the inclusion of cultural dimensions on the model, as well as their impact on retail market development and own-label brands performance, improves the model and the explanation of the level of own-label performance. Thus, it can be concluded that SCDT is the only method by which it is possible to reach our objective, compared to other traditional multivariate methods, for example, multiple regression analysis.

**6.3.6 The Importance of Hofstede's Model**

Numerous past studies have criticised Hofstede's model depicting national culture in four dimensions. For example, Tayeb (1996) argues that the method of defining these dimensions

was only based on an attitude-survey questionnaire. Other studies argue that Hofstede's study ignored within-country cultural heterogeneity and limited the sample to a single multinational corporation (Sivakumar and Nakata, 2001), which makes it non-representative of an entire country.

Despite these criticisms, this study was able to identify interesting and insightful results using his depiction of national culture. As will be explained in the next sections, several important theoretical and managerial contributions can be derived from the results of this study. Moreover, it would never have been possible to study such a large sample of countries (65 countries over the five continents) if this framework had not been used in this study. Indeed, to this researcher's best knowledge, there is no other cultural framework for which information about the main dimensions is available for such a large sample of countries. This is what makes us think that, despite what is sometimes expressed in literature, Hofstede's model is not yet obsolete! An example of a recent paper that concurs with these sentiments is Kirkman *et al.,* (2006) who, in an extensive literature review, shows that there is a large amount of important knowledge being generated by creating research using Hofstede's framework. Of course, this study recognises the limitations of this framework, and advises that taking into account, as it carefully did in this research, the recommendations made by Kirkman *et al.,* (2006) for a good use of this model.

## 6.4 Contributions and Implications

This section explains the different theoretical and managerial contributions that can be made by these results, as well as the different implications.

### 6.4.1 Theoretical Contributions

In a process of retail internationalisation, large international food retailers such as Carrefour, Ahold, Tesco, Wal-Mart and Metro have already moved into many emerging economies in

Asia, South America, Eastern Europe, and the Middle East. Nevertheless, the performance of own-label brands varies between Eastern and Western countries. Past cross-cultural studies (e.g., Shannon and Mandhachitra 2005; Herstein *et al.,* 2012) have focused on the consumer perspective in order to understand the disparity of own-label brands performance particularly between Eastern and Western countries. However, no cross-culture study has taken into account the role of the retail market in the performance of own-label brands.

The first major theoretical contribution of this study is discovering the relationships between culture, retail market and own-label brand performance, after controlling socio-economic factors, and hypothesising that cultural dimensions and retail market development impact on own-label brands performance. Specifically, this thesis explores that individualism and long-term orientation significantly impact on own-label brand performance. In addition, the research also reports that three cultural dimensions: power distance, individualism & uncertainty avoidance significantly impact on retail market development. Furthermore, this study finds that there is a significant relationship between retail market development and own-label brand performance. These empirical results therefore offer a clear reference point for exploiting the opportunities that exist for taking own-label brands into the international arena based on sound principles.

The second important contribution to theory that this study makes responds to recent calls for the cross-cultural study of own-label brands on a country level (Richardson *et al.,* 1996; Martenson 2007; Hyman *et al.,* 2010). To fill this gap in research, this thesis has employed Hofstede's (1980, 2001) five cultural dimensions: PDI, IDV, MAS, UAI & LTO, and collected secondary data from 65 countries. This study is therefore pioneering in investigating the five cultural dimensions across such a high number of nations.

The third theoretical contribution of this study is that whilst Hofstede's (1980, 2001) dimensions of cultural differences have been used to explain differences in adoption of own-label brands, not all of the five dimensions have been employed. The setting offered in this study takes all of the five dimensions into consideration in order to predict the outcomes.

The fourth, and final contribution to theory is that despite the criticisms levelled at Hofstede (see e.g., Oyserman *et al.,* 2002), this study was able to obtain interesting and insightful results using Hofstede's cultural model. Our findings report that two of Hofstede's cultural dimensions, individualism and long-term orientation play the predominant role in own-label brand performance. This study therefore validates Hofstede's cultural model, and claims that the model is not yet obsolete!

## 6.4.2 Methodological Contributions

This research study aims to investigate how culture impacts on own-label brand performance and the role of retail market development. The research begins with a broad review of the literature to take into account the existing state of knowledge on the constructs and relationships under examination. More specifically, based on a thorough review of the literature, this study develop a conceptual framework that hypothesises three main types of relationships: a) the direct impact of the five cultural dimensions (PDI, IDV, MAS, UAI & LTO) on own-label brands performance; b) the impact of the five cultural dimensions on retail market development; and finally, c) the impact of retail market development on own-label brands performance.  This thesis study mainly employs quantitative techniques employed by positivist methods, which involves the systematic scientific investigation of quantitative properties and phenomena, and their relationships (Easterby-Smith *et al.,* 2002).

An important contribution to method is prior cross-cultural studies, the use of primary data collection, using random samples of consumers / firms from two different countries to

perform mean and variance tests in order to demonstrate the similarities and differences in consumption of own-label brands (e.g., Shannon and Mandhachitra, 2005). This method has been criticised for not being adequate when studying cross-cultural differences, since factors other than culture, such as retail market development or socio-economic differences, may cause discrepancies in observed behaviour (e.g., Katona *et al.,* 1973; Clark, 1990; Dawar and Parker, 1994). In order to counter these criticisms, this study collected secondary data, employing different secondary sources across 65 countries. Specifically, in this study, the method involves the data collection of detailed information of a) scores of five cultural dimensions: PDI, IDV, MAS, UAI, and LTO; b) retail market development: size of the retail market; and c) own-label brand performance: market shares of own-labels. In addition, the method of this study incorporates three socio-economic factors: GDP per capita, government expenditure and Gini index as control variables. The data-set of this study therefore provides the researchers with rich diagnostic information, about how culture impacts on retail market development and own-label brands performance in the presence of control variables. This large sample data may help the researchers to replicate the findings, and also provides an insight towards building new theoretical models.

Other important contributions made to method are prior cross-cultural studies employing traditional multivariate methods, such as multiple regression, ANOVA, MANOVA in order to understand the role of culture on own-label brand performance (e.g., Shannon and Mandhachitra, 2005). Although traditional multivariate methods can be used to test the relationships between the constructs, the major drawback of employing multivariate technique is that it only assesses a single relationship between the independent and dependent variables (Chen *et al.,* 2011). In other words, traditional multivariate methods do not allow all possible relationships to be tested simultaneously. In addition, traditional methods are incapable of

either assessing or correcting measurement error (Steenkamp and Baumgartner 2000). To give more validity to the research, this study employed structure equation modelling (SEM). Indeed, SEM is an important tool for marketing research, and a powerful research tool for theory testing (Steenkamp and Baumgartner, 2000).

The final methodological contribution made is that this study tested the impact of culture on own-label brand performance, and the role of retail market development controlling several key elements related to a country's socioeconomic variables: GDP per capita, government expenditure and income distribution. Controlling for the impact of socio-economic elements allow this study to better isolate the role of cultural dimensions in the model, and to provide a stronger test of the hypotheses.

### 6.4.3 Implications for Managers and Policy Makers

Whilst arguably advancing own brand culture and literature, this study also has several implications for retail managers. Moreover, the study may provide some practical suggestions for policy makers. Most of the time, managers or policy makers decide which new markets they will enter by using information such as retail market development, socio-economics, or demographics (in particular population's income). These factors are of course important, and have to be used by retailers. However, the results presented in this thesis imply that managers and policy makers should narrow their geographical focus to contingent factors (e.g., culture) to examine own-label brands performance. Indeed, the success of critical strategies for retailers such as the own-label strategy, depends on cultural dimensions. For a similar level of retail market development and key socio-economic variables, own-label performance differs according to some cultural dimensions. This study empirically demonstrates that understanding the impact of contingent factor, in particular national culture, on country level, may help retail managers and policy makers to develop successful own-label brands strategies. Therefore, the findings of this study recommend that strategically, retailers should

alter their own-label approaches to international expansion on a culture basis. More specifically, retailers expanding into markets where the culture suggests long-term orientation or a strong collective (low individualism) will find greater opposition to own-label brands. Conversely, retailers entering short-term orientation or high individualism retail markets are less likely to face this obstacle.

International retailers such as Tesco, or Carrefour, with its own-label brand entering low individualism markets must work hard to be assimilated quickly into the country-level collective. This may be achieved by understanding the social factors of collective society. For example, traditional markets with dozens of local food stores remain the most popular place to buy grocery food, particularly in collective Chinese societies, including Taiwan (Lin *et al.,* 2009). In addition, collectivist consumers view the traditional corner store as a social centre where they meet their friends and neighbours. This is likely to decrease the tendency to shop in a modern store located in another neighbourhood (Goldman, 1974). This indicates that international retailers need to open new modern store formats that appeals to collectivist societies. Furthermore, to increase own-label brands performance, retailers operating in collectivist culture countries could launch premium lines and improve branding image of their offering. There are many successful examples in developing premium lines in individualistic (Western) markets in order to enhance brand image and to reduce the price-quality gap between own-labels and national brands. For example, the premium lines from Tesco, Carrefour, and WalMart are good examples of quality own-label brands. Introducing own-label brands under programs such as selector premium may close the current price-quality gap that exists between national and own-label brands (Mandhachitara *et al.,* 2007). Closing just the quality gap between own-labels and national brands may not be enough. Retailers aiming to increase own-label brand performance in collectivist countries could try choosing the non-quality equity by enhancing the image of own-label brands. For example, Jin and Suh's

(2005) study reported that emphasising the low price of own-label brands may not be effective for collectivist Korean shoppers. Instead, what may be emphasised is comparable quality, quality that matches or exceeds that of leading national brands. This may be accomplished through packaging, product demonstration, in-store advertising, and extended warranty periods (Jin and Suh, 2005).

Moreover, in collectivist culture countries, retail managers can decrease perceived risk through a host of different means, thereby increasing consumers' confidence in purchasing grocery own-label brands. For example, brand exposure through advertising and promotions may serve to familiarise consumers with the concept of own-label brands, making them less foreign, and more easily received. Past research reports that lack of familiarity with own-label brands is one of the main reasons why there is low performance of own-label brands market shares in a collectivist country like Taiwan (Lin *et al.,* 2009). Further to this, this study's results provide additional tactical implications for the marketing mix – the "how" of product launch decision (Hultink *et al.,* 1998) – to facilitate consumers' adoption of own-label brands. For example, in collectivist countries (e.g., Asian countries), marketers of own-label brands should focus promotional efforts on opinion leaders and other market mavens. In this respect, marketers and policy makers could take advantage of relatively rapid word-of-mouth communication. However when implementing the marketing mix strategy whilst launching own-label brands in less individualistic countries, retail managers should be aware that collectivistic consumers are relatively loyal, and are less likely to voice complaints when they experience post-purchase problems, but they do engage in negative word of mouth to in-group members (De Mooij and Hofstede, 2011). Thus, marketing mix communications should focus on own-label product benefits as they relate to the group – that is, acceptance by a membership in the group.

For retail giants that carry their own-label brands entering long-term orientation cultures, marketing practitioners' objectives should focus on overcoming this culture's willingness to accept change only slowly. In addition, its members' thrift and frugality must be addressed. The promotional mix should thus communicate the value of the product, that is, its benefits – particularly its long-term benefits – should be emphasised relative to its cost. In addition, marketers should consider placing greater emphasis on warranties in long-term dependability of the own-labels' quality. In this process, retailers and policy makers need to pay more attention to external cues (such as packaging, labels, etc.) that are associated with the product quality (Dolekoglu *et al.,* 2008).

Moreover, the findings of this study report that there is a significant positive relationship between retail market development and own-label brand performance. In addition, three cultural dimensions: power distance, individualism, and uncertainty avoidance significantly impact on retail market development. Thus, the findings of this study report that retailers expanding into markets where the cultures suggests a high power distance, a strong collective (low individualism), or high levels of uncertainty avoidance will find consumers exhibiting greater opposition to own-label brands. This study therefore suggest that retailers in countries with low degrees of power distance should excel at the initiation stage of new product development of own-label brands, due to the ready flow of diverse ideas and efforts across different levels. On the other hand, retailers in countries with high degrees of power distance should excel during the implementation stage of the new product process of own-label brands, because greater centralised command ensures coordination of the complex activities necessary for success. Nakata and Sivakumar (1996) found that the power distance in a culture affects new product development[7].

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[7] The new product development process may be simplified into two main phases: (1) initiation and (2) implementation

To summarise, these findings pose a major strategic challenge for retail executives and policy makers in countries that have less developed retail markets; they need to develop a greater degree of adaptation of the marketing mix elements, which may help to enhance the level of own-label brand performance. On the other hand, a more standardised approach will be more viable in highly developed retail markets. However, the adaptation efforts should be centred on the cultural differences existing among countries, particularly the individualism and long-term orientation dimensions. Culture is thus important to successful own-label brand selling, and cultural differences must be recognised through culturally appropriate marketing efforts. Ignoring the culture's influences on the other hand has "*led the retailers to centralise operations and marketing, which instead of increasing efficiency resulted in declining profitability*" (De Mooij and Hofstede, 2002, p. 61).

## 6.5 Limitations and Directions for Future Research

As an empirical study to examine the contingency effect of five cultural dimensions on own-label brands performance, this study suffers from a number of research limitations that open new avenues for future research directions to further examine such issues. This section presents theoretical and methodological limitations of the research, and also discusses some possible directions for future research.

### 6.5.1 Theoretical Limitations

A first set of limitations is linked to the use to Hofstede's (1980, 2001) cultural model. Although some of the cultural dimensions (e.g., individualism) of Hofstede's model have proven to be strongly predictive of own-label brands performance, the adequacy and comprehensiveness of Hofstede's model in accounting for cross-cultural differences have not received universal acceptance. Some cross-cultural researchers suspect that these dimensions may represent only a fraction of all the dimensions needed for a through explanation of

culture (Triandis, 1982; Kale, 1991). Future studies could examine novel dimensions of culture borrowed from alternative frameworks (e.g., GLOBE project), or employ multiple cultural models to explore the impact of culture on own-label brand performance.

Moreover, as mentioned earlier, the dimensions used to measure in this study are based on Hofstede's (1980, 2001) model. They need continuous modification for contemporary language and the cultural values of new populations under investigation (Yeh, 1988). In many countries, religion has a strong effect on the cultural values that tend to be expressed, and on the acceptance of the products to be sold (Muhamad and Mizerski, 2010). Additional research should be conducted, to study how religion reinforces cultural values beyond those that Hofstede discusses.

Another set of limitations is linked to the theory used in this study to build a conceptual framework. Contingency was introduced as an underlying theory to build a conceptual framework. Even if this theory has been used a lot in past studies, and has shown strong solidity, some researchers think it should be strengthened with additional elements. This is why further studies should investigate how to integrate contingency theory and other prevalent theories such as institutional theory, environmental theory. Utilising these phenomenon in future studies may help to increase the explanatory power of new conceptual models that may explain the role of culture on own-label brand performance more robustly.

A third set of limitations is linked to the prism that this study has used in order to link culture and own-label brand performance. In this thesis this link is hypothesised and empirically tested using the media of retail market perspective. Whilst this researcher had strong theoretical reasons for this, and the model was proven right, the study still proves that this vision may not be totally comprehensive. Other perspectives, for example, consumer perspective, may also play a part in this association. Such a holistic examination would

further illustrate the suggested link between national culture and own-label brand performance. Future research must also emphasise the fact that cultural conditioning occurs at several levels, the level of country being the broadest. The family environment, the geographical region, the social group, and the professional environment would all modify national culture to some extent (Kale and McIntyre, 1991). Thus, whilst cultural assessment at the national level is a convenient starting point, a total understanding of the cultural domain that impacts on own-label brand performance, in the future, would consider cultural programming at relatively micro-levels (e.g., education) as well.

Many countries (e.g., Western European, the US) no longer have homogeneous cultural frameworks, and are more multicultural. This may be one reason why this study found insignificant results on uncertainty and masculinity cultural dimensions. Future research should therefore develop and test multi-layered theories and models, specifying meta-, national-, and micro-cultural and individual-level effects and their interrelations (Steenkamp *et al.,* 1999). Such models would lead to a better understanding of the role of culture on own-label brands.

This study empirically explored the impact of culture on own-label brand performance and the role of retail market development. Future research should also investigate the role of national culture's influence on own-label brand performance and the effect of service quality. It seems plausible that intangible service offerings, which are more individualised and culturally sensitive, may be more influenced by national culture than tangible product goods are (Dwyer *et al.,* 2005). Researchers should contemplate gauging cross-cultural attribution differences with respect to customers' evaluation of superior or inferior service when purchasing own-label brands. This area appears especially ripe for exploration.

Finally, this study has not incorporated the sixth cultural dimension of Hofstede's model: indulgence versus restraint. This is due to the fact that reliable data is missing regarding this dimension. An interesting area of future research would be to incorporate this dimension in order to check its impact on our results.

### 6.5.2 Methodological Limitations

Perhaps the most important limitation of this study lies in the use of secondary data. Researchers should also consider the role of culture on own-label brands by analysing the changes in primary data. For example, by conducting several experiments on a cross-cultural setting on an individual level. However, the challenges of such studies are obvious, with data availability being a basic concern. Although there are some inherent difficulties in conducting cross-cultural experimental designs, this study still suggests that future studies could use experiments as research methods, to collect primary data on an individual level. The fact remains that linkage between culture and own-label brand performance can be demonstrated by experiments in which researchers create the conditions to establish cause-effect relationships. Such studies could enhance internal validity (Kirkman *et al.,* 2006). Recent research also supports this view, and states that "*further research could enrich the findings on own-labels decisions through laboratory-based choice experiments*" (Geyskens *et al.,* 2010, p.805).

Given the conclusions regarding the relationships between national culture and own-label brand performance on a country level, researchers could capture cultural values in interviews, using qualitative content analysis to characterise culture at an individual or group/organisational level (Kirkman *et al.,* 2006). Gibson and Zellmer-Bruhn (2001) used this approach successfully in their examination of cultural variation in the use of teamwork metaphors.

This study used cross-sectional data. Further research could be done by employing cross sectional-time series data utilising structural equation models, such as latent variables growth curve modelling. This has the potential to develop our understanding of the mediation role of retail market development between cultural dimensions and own-label brands performance over time. In addition, this approach could also be employed to assess the impact of how various marketing variables interact with the cultural dimensions and the performance of own-label brands, under what circumstances, and which activities are most successful over time.

The concept of own-label brands is now applied to various retailing industries such as clothing, health care products, home appliance and food (Lin *et al.,* 2009). Whilst some empirical studies have found that own-label brands are positioned in certain categories rather than others (e.g., Hansen and Chintagunta, 2006), this study restricted the focus to one product category: the consumers' packaged foods category. This is because the packaged food category of own-label brands has emerged as a fierce competitor for national brands (Lamey *et al.,* 2012). Future studies could test the validity of this study's conceptual model on other types of product categories, which could include non-food product categories (e.g., clothes, health and beauty, domestic appliances), and focus on the different performance between these categories. In particular, the inclusion of more "experiential" or "feel" type products, such as apparel, is worthy of attention (Jin and Suh 2005, p.62), in order to explore the consumer perception factors in predicting own-label brands purchase in a cross-cultural context.

# Chapter 7

# Conclusion

Despite the huge practitioner and academic research interest in the concept of own-labels, many questions still remain about the effect of culture on own-label brands performance. In answering these questions, this thesis explores the impact of culture on own-label brand performance. In particular, this study empirically tested relations between five cultural dimensions: power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance (UAI), and long-term orientation (LTO), and own-label brand performance and retail market development, after controlling three socio-economic variables: GDP per capita, government expenditure and Gini index. The results found a significant impact of two of those cultural dimensions (IDV and LTO) on own-label brand performance. Moreover, the results found that three cultural dimensions (PDI, IDV, and UAI) had a significant impact on the retail market development, which in turn influences the performance of retailers in terms of their own-label brand strategy.

No research to date has investigated the relationship between culture, own-label brand performance, and the retail market after checking socio-economic variables, or hypothesised that cultural dimensions and retail market development have an impact on own-label brand performance. This research fills this gap, by acknowledging a contingency framework which incorporates a set of contingent elements such as culture and socio-economic factors into the research design. By integrating these contingent elements into the retail market and

performance of own-label brands, the research scope concerning the formulation of strategic approaches has been broadened. The research findings offer academics and practitioners a clear reference point for exploiting the opportunities that exist for taking own-label brands into the international arena based on sound principles.

This study has been a starting point from which to demonstrate the impact of culture on own-label brand performance from a retail market perspective. Future research should consider other perspectives, for instance individual characteristics such as age, income, education, occupation, family status, and gender, in order to develop a better understanding of the influence of culture on consumer behaviour. In this globalised world with increased wealth, predicting and explaining individual characteristic differences across/within countries is indispensable for international retailers. Expanding operations to countries with different cultural values than one's own, without adapting to these differences, can lead to serious losses (De Mooij and Hofstede, 2001).

Although globalisation has led to the convergence of income, media and technology, consumer behaviour is diverging (Buil *et al.,* 2009). For example, according to De Mooij (2003) although there is evidence of converging economic and demographic systems in Europe, there is no evidence of converging value systems. On the contrary, there is evidence that consumer behaviour is diverging in Europe as reflected in the consumption, ownership and use of many products and services (De Mooij, 2003). This phenomenon is increasingly important for future research, to understand values of national culture and their impact on consumer behaviour particularly on the own-label brands domain.

Overall, this thesis sheds light on the under-studied concept of the impact of culture on own-label brand performance and the role of retail market development at a country level. However, it is important to recognise that the country level is not the only level at which culture can be operationalised (Steenkamp, 2001). Culture can be defined and studied at different levels: national culture, meta culture, and micro culture (see Steenkamp, 2001; Leung *et al.,* 2005). According to Leung *et al* (2005), at the meta level, culture could be viewed as being created by global networks and institutions, that cross national and cultural borders; at the national level, nested organisations and networks embedded in local cultures can be seen as composing national culture; and at the micro level, individuals, through processes of socialisation, could be viewed as acquiring the cultural values transmitted to them from higher levels of culture, making up personal values (Yaprak, 2008). Future research should develop and test multi-layered theories and models, specifying meta-, national-, and micro cultural, and individual-level effects and their interrelations (Steenkamp *et al.,* 1999). Such research would lead to a better understanding of the role of culture in attitudes and behaviour.

In terms of research method, this study was restricted to macro-level data (e.g., national culture, socio-economic). Whilst this data provides a basis for ranking countries in terms of relative attractiveness, future research needs to pay more attention to the broader socio-cultural and ecological context of consumption and purchase behaviour in evaluating international marketing opportunities (Douglas and Craig, 2011). This entails examining not only differences in the macro-environmental or country level, but also within-country differences such as the characteristics of an urban verses rural context, the household living arrangements and social interaction, the marketing and media infrastructure, as well as the specific situational context in which consumption takes place (Douglas and Craig, 2011). In

addition, this approach can provide important insights not only into how a product or service can best be designed to fit the consumption context, but also how it can be appropriately positioned and promoted (Douglas and Craig, 2011). This in turn requires greater attention to be paid towards collecting information (both quantitative and qualitative) relating to consumption contexts and factors that vary across and within countries, and influence behaviour in these contexts. To employ this research method, Leung *et al.,* (2005) suggested that multi-method approaches are more appropriate approaches in cross-culture research, that can lead to clearer pictures of how cognitive processing, when reinforced through such constructs as education embedded social networks, might influence purchase behaviour in multiple markets. In a similar vein, the use of multiple methods might offer a more robust methodology, given that culture studies typically involve multiple constructs, each with multiple variables under investigation, and the need to check for the effects of these under varying circumstances (Yaprak, 2008).

Focusing attention on these improvement suggestions should help future researchers to create more theoretically robust and managerially applicable cultural theories that possess stronger ontological and epistemological roots and that permeate the many domains of international marketing research.

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## Appendix 1: Considered Countries Regarding Cultural Dimensions

As followed, the list of countries available for each data source:

| Country | Euromonitor | Hofstede *et al.*, (2010) Book | Final database |
|---|---|---|---|
| Algeria | X | | |
| Argentina | X | X | X |
| Australia | X | X | X |
| Austria | X | X | X |
| Azerbaijan | X | | |
| Bangladesh | | X | |
| Belarus | X | | |
| Belgium | X | X | X |
| Bolivia | X | | |
| Bosnia and Herzegovina | X | | |
| Brazil | X | X | X |
| Bulgaria | X | X | X |
| Cameroon | X | | |
| Canada | X | X | X |
| Chile | X | X | X |
| China | X | X | X |
| Colombia | X | X | X |
| Costa Rica | X | X | X |
| Croatia | X | X | X |
| Czech Republic | X | X | X |
| Denmark | X | X | X |
| Dominican Republic | X | | |
| Ecuador | X | X | X |
| Egypt | X | X | X |
| El Salvador | | X | |
| Estonia | X | X | X |
| Ethiopia | | X | |
| Finland | X | X | X |
| France | X | X | X |
| Georgia | X | | |
| Germany | X | X | X |
| Ghana | | X | |
| Greece | X | X | X |
| Guatemala | X | X | X |
| Hong Kong | X | X | X |
| Hungary | X | X | X |
| India | X | X | X |
| Indonesia | X | X | X |
| Iran | X | X | X |

| | | | |
|---|---|---|---|
| Iraq | | X | |
| Ireland | X | X | X |
| Israel | X | X | X |
| Italy | X | X | X |
| Jamaica | | X | |
| Japan | X | X | X |
| Kazakhstan | X | | |
| Kenya | X | *X* | X |
| Kuwait | | X | |
| Latvia | X | | |
| Lebanon | | X | |
| *Libye* | | X | |
| Lithuania | X | | |
| Luxembourg | | X | |
| Macedonia | X | | |
| Malaysia | X | X | X |
| Malta | | X | |
| Mexico | X | X | X |
| Morocco | X | X | X |
| Netherlands | X | X | X |
| New Zealand | X | X | X |
| Nigeria | X | X | X |
| Norway | X | X | X |
| Pakistan | X | X | X |
| Panama | | X | |
| Peru | X | X | X |
| Philippines | X | X | X |
| Poland | X | X | X |
| Portugal | X | X | X |
| Romania | X | X | X |
| Russia | X | X | X |
| Saudi Arabia | X | X | X |
| Serbia | X | X | X |
| Sierra Leone | | X | |
| Singapore | X | X | X |
| Slovakia | X | X | X |
| Slovenia | X | X | X |
| South Africa | X | X | X |
| South Korea | X | X | X |
| Spain | X | X | X |
| Surinam | | X | |
| Sweden | X | X | X |
| Switzerland | X | X | X |
| Taiwan | X | X | X |
| Tanzania | | X | |

| | | | |
|---|---|---|---|
| Thailand | X | X | X |
| Trinidad | | X | |
| Tunisia | X | | |
| Turkey | X | X | X |
| Ukraine | X | | |
| United Arab Emirates | X | X | X |
| United Kingdom | X | X | X |
| United States | X | X | X |
| Uruguay | X | X | X |
| Uzbekistan | X | | |
| Venezuela | X | X | X |
| Vietnam | X | X | X |
| Zambia | | X | |
| | 80 | 82 | 65 |
| *\* data from ex-Yugoslavia* | | | |

## Appendix 2: Food sub-Categories Included Into "Packaged food" of Own-Label Brands

**Bakery**

This is the aggregation of baked goods, biscuits and breakfast cereals.

**Canned/Preserved Food**

This is the aggregation of canned/preserved meat and meat products, fish/seafood, vegetables, tomatoes, beans, fruit, ready meals, soup, pasta, and other canned/preserved foods.

**Chilled Processed Food**

This is the aggregation of chilled processed meats, processed fish/seafood products, lunch kits, fresh cut fruits, ready meals, pizza, prepared salads, soup, fresh pasta and noodles. Note: All packaged products, including branded, private label as well as generic products are included. Generic chilled processed food products typically come in a plastic tray, covered with cellophane/clear wrapping. Such products usually only come with a price tag with the name of the retailer on the packaging.

**Dried Processed Food**

This is the aggregation of rice, dessert mixes, dried ready meals, dehydrated soup, instant soup, dried pasta, plain noodles and instant noodles.

**Frozen Processed Food**

This is the aggregation of frozen processed red meat, processed poultry, processed fish/seafood, processed vegetables, meat substitutes, processed potatoes, bakery products, desserts, ready meals, pizza, soup, noodles and other frozen food. Note: All packaged products, including branded, private label as well as generic products are included. Generic frozen processed food products typically come in a plastic tray, covered with cellophane/clear wrapping. Such products usually only come with a price tag with the name of the retailer and/or manufacturer on the packaging.

**Ice Cream**

This is the aggregation of impulse ice cream, take-home ice cream, frozen yoghurt and artisanal ice cream. Note: Soy, oat, bean, and rice-based ice creams are included in dairy ice cream. Rice, soy, oats and beans (ie red bean and mung bean ice cream products found in East Asia) can be used as dairy substitutes in the manufacture of ice cream, but the product is still equivalent in terms of positioning/marketing and consumer targeting to standard dairy ice cream.

**Noodles**

This is the aggregation of plain, instant, chilled, frozen and snack noodles.

**Oils and Fats**

This is the aggregation of olive oil, vegetable and seed oil, cooking fats, butter, margarine, and spreadable oils and fats.

**Pasta**
This is the aggregation of canned, dried and chilled/fresh pasta.

**Ready Meals**

This is the aggregation of canned/preserved, frozen, dried, chilled ready meals, dinner mixes, frozen pizza, chilled pizza and prepared salads. Note: Ready meals are products that have had recipe "skills" added to them by the manufacturer, resulting in a high degree of readiness, completion and convenience. Ready meals are generally accepted to be complete meals that require few or no extra ingredients, however, in the case of canned/preserved ready meals, the term also encompasses meal "centres'; for dinner mixes, the term encompasses part meals. Some ready meals may require cooking; others may simply need reheating, prior to serving.

**Sauces, Dressings and Condiments**

This is the aggregation of tomato pastes and purees, bouillon/stock cubes, herbs and spices, monosodium glutamate (MSG), table sauces, soy based sauces, pasta sauces, wet/cooking sauces, dry sauces/powder mixes, ketchup, mayonnaise, mustard, salad dressings, vinaigrettes, dips, pickled products, and other sauces, dressings and condiments.

**Snack Bars**

This is the aggregation of granola/muesli bars, breakfast bars, energy bars, fruit bars and other snack bars.

**Soup**
This is the aggregation of canned/preserved, dehydrated, instant, chilled, UHT and frozen soup.

**Spreads**
This is the aggregation of jams and preserves, honey, chocolate spreads, nut based spreads, and yeast based spreads.

**Sweet and Savoury Snacks**

This is the aggregation of fruit snacks, chips/crisps, extruded snacks, tortilla/corn chips, popcorn, pretzels, nuts and other sweet and savoury snacks

## Appendix 3: Amos Output of Model 1

**Notes for Model (Default model)**

**Computation of degrees of freedom (Default model)**

| | |
|---|---|
| Number of distinct sample moments: | 55 |
| Number of distinct parameters to be estimated: | 22 |
| Degrees of freedom (55 - 22): | 33 |

**Result (Default model)**

Minimum was achieved
Chi-square = 137.228
Degrees of freedom = 33
Probability level = .000

**Estimates (Group number 1 - Default model)**

**Scalar Estimates (Group number 1 - Default model)**

**Maximum Likelihood Estimates**

**Regression Weights: (Group number 1 - Default model)**

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .000 | | | | |
| Tot_Groc_Pop | <--- | Gini_Index | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_PDI | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_IDV | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_MAS | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_UAI | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_LTO | .000 | | | | |
| Tot_Groc_Pop | <--- | Govt_Expdt_Pop | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_PDI | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_IDV | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_LTO | .000 | | | | |
| OwnLabel_MS | <--- | Tot_Groc_Pop | 6.674 | .826 | 8.077 | *** | |
| OwnLabel_MS | <--- | Hofst3_UAI | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_MAS | .000 | | | | |

**Standardized Regression Weights: (Group number 1 - Default model)**

| | | | Estimate |
|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .000 |
| Tot_Groc_Pop | <--- | Gini_Index | .000 |

| | Estimate |
|---|---|
| Tot_Groc_Pop  <---  Hofst3_PDI | .000 |
| Tot_Groc_Pop  <---  Hofst3_IDV | .000 |
| Tot_Groc_Pop  <---  Hofst3_MAS | .000 |
| Tot_Groc_Pop  <---  Hofst3_UAI | .000 |
| Tot_Groc_Pop  <---  Hofst3_LTO | .000 |
| Tot_Groc_Pop  <---  Govt_Expdt_Pop | .000 |
| OwnLabel_MS  <---  Hofst3_PDI | .000 |
| OwnLabel_MS  <---  Hofst3_IDV | .000 |
| OwnLabel_MS  <---  Hofst3_LTO | .000 |
| OwnLabel_MS  <---  Tot_Groc_Pop | .711 |
| OwnLabel_MS  <---  Hofst3_UAI | .000 |
| OwnLabel_MS  <---  Hofst3_MAS | .000 |

**Covariances: (Group number 1 - Default model)**

| | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| GDP_POP  <-->  Gini_Index | -48.312 | 14.149 | -3.415 | *** | |
| GDP_POP  <-->  Govt_Expdt_Pop | -5089.319 | 2881.675 | -1.766 | .077 | |
| Hofst3_PDI  <-->  Hofst3_IDV | -322.939 | 77.266 | -4.180 | *** | |
| Hofst3_PDI  <-->  GDP_POP | -169.622 | 44.065 | -3.849 | *** | |
| Hofst3_IDV  <-->  GDP_POP | 187.754 | 45.504 | 4.126 | *** | |
| GDP_POP  <-->  Hofst3_UAI | -53.370 | 31.089 | -1.717 | .086 | |
| Hofst3_LTO  <-->  GDP_POP | 81.239 | 33.872 | 2.398 | .016 | |
| Hofst3_PDI  <-->  Gini_Index | 68.911 | 22.228 | 3.100 | .002 | |
| Hofst3_IDV  <-->  Gini_Index | -70.662 | 22.286 | -3.171 | .002 | |
| Hofst3_LTO  <-->  Gini_Index | -80.972 | 23.254 | -3.482 | *** | |
| Hofst3_IDV  <-->  Govt_Expdt_Pop | -9072.353 | 4650.327 | -1.951 | .051 | |

**Correlations: (Group number 1 - Default model)**

| | Estimate |
|---|---|
| GDP_POP  <-->  Gini_Index | -.425 |
| GDP_POP  <-->  Govt_Expdt_Pop | -.179 |
| Hofst3_PDI  <-->  Hofst3_IDV | -.601 |
| Hofst3_PDI  <-->  GDP_POP | -.515 |
| Hofst3_IDV  <-->  GDP_POP | .560 |
| GDP_POP  <-->  Hofst3_UAI | -.164 |
| Hofst3_LTO  <-->  GDP_POP | .243 |
| Hofst3_PDI  <-->  Gini_Index | .378 |
| Hofst3_IDV  <-->  Gini_Index | -.381 |
| Hofst3_LTO  <-->  Gini_Index | -.437 |
| Hofst3_IDV  <-->  Govt_Expdt_Pop | -.195 |

**Variances: (Group number 1 - Default model)**

|  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| Hofst3_PDI | 527.850 | 93.312 | 5.657 | *** | |
| Hofst3_IDV | 547.148 | 95.248 | 5.744 | *** | |
| Hofst3_LTO | 544.962 | 96.337 | 5.657 | *** | |
| GDP_POP | 205.123 | 34.655 | 5.919 | *** | |
| Gini_Index | 62.943 | 10.732 | 5.865 | *** | |
| Hofst3_MAS | 367.716 | 65.004 | 5.657 | *** | |
| Hofst3_UAI | 515.412 | 91.113 | 5.657 | *** | |
| Govt_Expdt_Pop | 3942335.912 | 696913.114 | 5.657 | *** | |
| e1 | 1.153 | .204 | 5.657 | *** | |
| e2 | 50.381 | 8.906 | 5.657 | *** | |

**Squared Multiple Correlations: (Group number 1 - Default model)**

|  | Estimate |
|---|---|
| Tot_Groc_Pop | .000 |
| OwnLabel_MS | .505 |

## Model Fit Summary

### CMIN

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 22 | 137.228 | 33 | .000 | 4.158 |
| Saturated model | 55 | .000 | 0 | | |
| Independence model | 10 | 295.884 | 45 | .000 | 6.575 |

### RMR, GFI

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | 1057.767 | .789 | .649 | .474 |
| Saturated model | .000 | 1.000 | | |
| Independence model | 2041.393 | .445 | .322 | .364 |

### Baseline Comparisons

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .536 | .368 | .604 | .433 | .585 |
| Saturated model | 1.000 | | 1.000 | | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**Parsimony-Adjusted Measures**

| Model | PRATIO | PNFI | PCFI |
|---|---|---|---|
| Default model | .733 | .393 | .429 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1.000 | .000 | .000 |

**NCP**

| Model | NCP | LO 90 | HI 90 |
|---|---|---|---|
| Default model | 104.228 | 71.793 | 144.224 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 250.884 | 200.188 | 309.075 |

**FMIN**

| Model | FMIN | F0 | LO 90 | HI 90 |
|---|---|---|---|---|
| Default model | 2.144 | 1.629 | 1.122 | 2.253 |
| Saturated model | .000 | .000 | .000 | .000 |
| Independence model | 4.623 | 3.920 | 3.128 | 4.829 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .222 | .184 | .261 | .000 |
| Independence model | .295 | .264 | .328 | .000 |

**AIC**

| Model | AIC | BCC | BIC | CAIC |
|---|---|---|---|---|
| Default model | 181.228 | 190.360 | 229.065 | 251.065 |
| Saturated model | 110.000 | 132.830 | 229.591 | 284.591 |
| Independence model | 315.884 | 320.034 | 337.627 | 347.627 |

**ECVI**

| Model | ECVI | LO 90 | HI 90 | MECVI |
|---|---|---|---|---|
| Default model | 2.832 | 2.325 | 3.457 | 2.974 |
| Saturated model | 1.719 | 1.719 | 1.719 | 2.075 |
| Independence model | 4.936 | 4.144 | 5.845 | 5.001 |

**HOELTER**

| Model | HOELTER .05 | HOELTER .01 |
|---|---|---|
| Default model | 23 | 26 |
| Independence model | 14 | 16 |

## Appendix 4: Amos Output of Model 2

**Notes for Model (Default model)**

**Computation of degrees of freedom (Default model)**

| | |
|---|---|
| Number of distinct sample moments: | 55 |
| Number of distinct parameters to be estimated: | 25 |
| Degrees of freedom (55 - 25): | 30 |

**Result (Default model)**

Minimum was achieved
Chi-square = 73.462
Degrees of freedom = 30
Probability level = .000

**Estimates (Group number 1 - Default model)**

**Scalar Estimates (Group number 1 - Default model)**

**Maximum Likelihood Estimates**

**Regression Weights: (Group number 1 - Default model)**

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .043 | .006 | 6.723 | *** | |
| Tot_Groc_Pop | <--- | Gini_Index | -.041 | .011 | -3.560 | *** | |
| Tot_Groc_Pop | <--- | Hofst3_PDI | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_IDV | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_MAS | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_UAI | .000 | | | | |
| Tot_Groc_Pop | <--- | Hofst3_LTO | .000 | | | | |
| Tot_Groc_Pop | <--- | Govt_Expdt_Pop | .000 | .000 | -.300 | .764 | |
| OwnLabel_MS | <--- | Hofst3_PDI | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_IDV | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_LTO | .000 | | | | |
| OwnLabel_MS | <--- | Tot_Groc_Pop | 6.674 | .851 | 7.841 | *** | |
| OwnLabel_MS | <--- | Hofst3_UAI | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_MAS | .000 | | | | |

**Standardized Regression Weights: (Group number 1 - Default model)**

| | | | Estimate |
|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .593 |
| Tot_Groc_Pop | <--- | Gini_Index | -.309 |
| Tot_Groc_Pop | <--- | Hofst3_PDI | .000 |

| | Estimate |
|---|---|
| Tot_Groc_Pop  <---  Hofst3_IDV | .000 |
| Tot_Groc_Pop  <---  Hofst3_MAS | .000 |
| Tot_Groc_Pop  <---  Hofst3_UAI | .000 |
| Tot_Groc_Pop  <---  Hofst3_LTO | .000 |
| Tot_Groc_Pop  <---  Govt_Expdt_Pop | -.024 |
| OwnLabel_MS  <---  Hofst3_PDI | .000 |
| OwnLabel_MS  <---  Hofst3_IDV | .000 |
| OwnLabel_MS  <---  Hofst3_LTO | .000 |
| OwnLabel_MS  <---  Tot_Groc_Pop | .700 |
| OwnLabel_MS  <---  Hofst3_UAI | .000 |
| OwnLabel_MS  <---  Hofst3_MAS | .000 |

**Covariances: (Group number 1 - Default model)**

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| GDP_POP | <--> | Gini_Index | -48.312 | 14.149 | -3.415 | *** | |
| GDP_POP | <--> | Govt_Expdt_Pop | -5089.319 | 2881.675 | -1.766 | .077 | |
| Hofst3_PDI | <--> | Hofst3_IDV | -322.939 | 77.266 | -4.180 | *** | |
| Hofst3_PDI | <--> | GDP_POP | -169.622 | 44.065 | -3.849 | *** | |
| Hofst3_IDV | <--> | GDP_POP | 187.754 | 45.504 | 4.126 | *** | |
| GDP_POP | <--> | Hofst3_UAI | -53.370 | 31.089 | -1.717 | .086 | |
| Hofst3_LTO | <--> | GDP_POP | 81.239 | 33.872 | 2.398 | .016 | |
| Hofst3_PDI | <--> | Gini_Index | 68.911 | 22.228 | 3.100 | .002 | |
| Hofst3_IDV | <--> | Gini_Index | -70.662 | 22.286 | -3.171 | .002 | |
| Hofst3_LTO | <--> | Gini_Index | -80.972 | 23.254 | -3.482 | *** | |
| Hofst3_IDV | <--> | Govt_Expdt_Pop | -9072.353 | 4650.327 | -1.951 | .051 | |

**Correlations: (Group number 1 - Default model)**

| | | | Estimate |
|---|---|---|---|
| GDP_POP | <--> | Gini_Index | -.425 |
| GDP_POP | <--> | Govt_Expdt_Pop | -.179 |
| Hofst3_PDI | <--> | Hofst3_IDV | -.601 |
| Hofst3_PDI | <--> | GDP_POP | -.515 |
| Hofst3_IDV | <--> | GDP_POP | .560 |
| GDP_POP | <--> | Hofst3_UAI | -.164 |
| Hofst3_LTO | <--> | GDP_POP | .243 |
| Hofst3_PDI | <--> | Gini_Index | .378 |
| Hofst3_IDV | <--> | Gini_Index | -.381 |
| Hofst3_LTO | <--> | Gini_Index | -.437 |
| Hofst3_IDV | <--> | Govt_Expdt_Pop | -.195 |

**Variances: (Group number 1 - Default model)**

|  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| Hofst3_PDI | 527.850 | 93.312 | 5.657 | *** | |
| Hofst3_IDV | 547.148 | 95.248 | 5.744 | *** | |
| Hofst3_LTO | 544.962 | 96.337 | 5.657 | *** | |
| GDP_POP | 205.123 | 34.655 | 5.919 | *** | |
| Gini_Index | 62.943 | 10.732 | 5.865 | *** | |
| Hofst3_MAS | 367.716 | 65.004 | 5.657 | *** | |
| Hofst3_UAI | 515.412 | 91.113 | 5.657 | *** | |
| Govt_Expdt_Pop | 3942335.912 | 696913.114 | 5.657 | *** | |
| e1 | .426 | .075 | 5.657 | *** | |
| e2 | 50.381 | 8.906 | 5.657 | *** | |

**Squared Multiple Correlations: (Group number 1 - Default model)**

|  | Estimate |
|---|---|
| Tot_Groc_Pop | .608 |
| OwnLabel_MS | .490 |

## Model Fit Summary

### CMIN

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 25 | 73.462 | 30 | .000 | 2.449 |
| Saturated model | 55 | .000 | 0 | | |
| Independence model | 10 | 295.884 | 45 | .000 | 6.575 |

### RMR, GFI

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | 936.683 | .857 | .738 | .468 |
| Saturated model | .000 | 1.000 | | |
| Independence model | 2041.393 | .445 | .322 | .364 |

### Baseline Comparisons

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .752 | .628 | .837 | .740 | .827 |
| Saturated model | 1.000 | | 1.000 | | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**Parsimony-Adjusted Measures**

| Model | PRATIO | PNFI | PCFI |
|---|---|---|---|
| Default model | .667 | .501 | .551 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1.000 | .000 | .000 |

**NCP**

| Model | NCP | LO 90 | HI 90 |
|---|---|---|---|
| Default model | 43.462 | 22.062 | 72.554 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 250.884 | 200.188 | 309.075 |

**FMIN**

| Model | FMIN | F0 | LO 90 | HI 90 |
|---|---|---|---|---|
| Default model | 1.148 | .679 | .345 | 1.134 |
| Saturated model | .000 | .000 | .000 | .000 |
| Independence model | 4.623 | 3.920 | 3.128 | 4.829 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .150 | .107 | .194 | .000 |
| Independence model | .295 | .264 | .328 | .000 |

**AIC**

| Model | AIC | BCC | BIC | CAIC |
|---|---|---|---|---|
| Default model | 123.462 | 133.839 | 177.822 | 202.822 |
| Saturated model | 110.000 | 132.830 | 229.591 | 284.591 |
| Independence model | 315.884 | 320.034 | 337.627 | 347.627 |

**ECVI**

| Model | ECVI | LO 90 | HI 90 | MECVI |
|---|---|---|---|---|
| Default model | 1.929 | 1.595 | 2.384 | 2.091 |
| Saturated model | 1.719 | 1.719 | 1.719 | 2.075 |
| Independence model | 4.936 | 4.144 | 5.845 | 5.001 |

**HOELTER**

| Model | HOELTER .05 | HOELTER .01 |
|---|---|---|
| Default model | 39 | 45 |
| Independence model | 14 | 16 |

## Appendix 5: Amos Output of Model 3

<ins>Notes for Model (Default model)</ins>

**Computation of degrees of freedom (Default model)**

| | |
|---|---|
| Number of distinct sample moments: | 55 |
| Number of distinct parameters to be estimated: | 30 |
| Degrees of freedom (55 - 30): | 25 |

**Result (Default model)**

Minimum was achieved
Chi-square = 33.939
Degrees of freedom = 25
Probability level = .109

**Estimates (Group number 1 - Default model)**

**Scalar Estimates (Group number 1 - Default model)**

**Maximum Likelihood Estimates**

**Regression Weights: (Group number 1 - Default model)**

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .032 | .006 | 5.571 | *** | |
| Tot_Groc_Pop | <--- | Gini_Index | -.016 | .010 | -1.654 | .098 | |
| Tot_Groc_Pop | <--- | Hofst3_PDI | -.009 | .004 | -2.575 | .010 | |
| Tot_Groc_Pop | <--- | Hofst3_IDV | .017 | .004 | 4.618 | *** | |
| Tot_Groc_Pop | <--- | Hofst3_MAS | -.004 | .003 | -1.189 | .235 | |
| Tot_Groc_Pop | <--- | Hofst3_UAI | .013 | .003 | 4.718 | *** | |
| Tot_Groc_Pop | <--- | Hofst3_LTO | -.002 | .003 | -.724 | .469 | |
| Tot_Groc_Pop | <--- | Govt_Expdt_Pop | .000 | .000 | .475 | .635 | |
| OwnLabel_MS | <--- | Hofst3_PDI | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_IDV | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_LTO | .000 | | | | |
| OwnLabel_MS | <--- | Tot_Groc_Pop | 6.674 | .819 | 8.149 | *** | |
| OwnLabel_MS | <--- | Hofst3_MAS | .000 | | | | |
| OwnLabel_MS | <--- | Hofst3_UAI | .000 | | | | |

**Standardized Regression Weights: (Group number 1 - Default model)**

| | | | Estimate |
|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .423 |
| Tot_Groc_Pop | <--- | Gini_Index | -.116 |
| Tot_Groc_Pop | <--- | Hofst3_PDI | -.192 |

|  | Estimate |
|---|---|
| Tot_Groc_Pop  <---  Hofst3_IDV | .359 |
| Tot_Groc_Pop  <---  Hofst3_MAS | -.066 |
| Tot_Groc_Pop  <---  Hofst3_UAI | .267 |
| Tot_Groc_Pop  <---  Hofst3_LTO | -.047 |
| Tot_Groc_Pop  <---  Govt_Expdt_Pop | .027 |
| OwnLabel_MS  <---  Hofst3_PDI | .000 |
| OwnLabel_MS  <---  Hofst3_IDV | .000 |
| OwnLabel_MS  <---  Hofst3_LTO | .000 |
| OwnLabel_MS  <---  Tot_Groc_Pop | .714 |
| OwnLabel_MS  <---  Hofst3_MAS | .000 |
| OwnLabel_MS  <---  Hofst3_UAI | .000 |

**Covariances: (Group number 1 - Default model)**

|  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| GDP_POP  <-->  Gini_Index | -48.312 | 14.149 | -3.415 | *** | |
| GDP_POP  <-->  Govt_Expdt_Pop | -5089.319 | 2881.675 | -1.766 | .077 | |
| Hofst3_PDI  <-->  Hofst3_IDV | -322.939 | 77.266 | -4.180 | *** | |
| Hofst3_PDI  <-->  GDP_POP | -169.622 | 44.065 | -3.849 | *** | |
| Hofst3_IDV  <-->  GDP_POP | 187.754 | 45.504 | 4.126 | *** | |
| GDP_POP  <-->  Hofst3_UAI | -53.370 | 31.089 | -1.717 | .086 | |
| Hofst3_LTO  <-->  GDP_POP | 81.239 | 33.872 | 2.398 | .016 | |
| Hofst3_PDI  <-->  Gini_Index | 68.911 | 22.228 | 3.100 | .002 | |
| Hofst3_IDV  <-->  Gini_Index | -70.662 | 22.286 | -3.171 | .002 | |
| Hofst3_LTO  <-->  Gini_Index | -80.972 | 23.254 | -3.482 | *** | |
| Hofst3_IDV  <-->  Govt_Expdt_Pop | -9072.353 | 4650.327 | -1.951 | .051 | |

**Correlations: (Group number 1 - Default model)**

|  | Estimate |
|---|---|
| GDP_POP  <-->  Gini_Index | -.425 |
| GDP_POP  <-->  Govt_Expdt_Pop | -.179 |
| Hofst3_PDI  <-->  Hofst3_IDV | -.601 |
| Hofst3_PDI  <-->  GDP_POP | -.515 |
| Hofst3_IDV  <-->  GDP_POP | .560 |
| GDP_POP  <-->  Hofst3_UAI | -.164 |
| Hofst3_LTO  <-->  GDP_POP | .243 |
| Hofst3_PDI  <-->  Gini_Index | .378 |
| Hofst3_IDV  <-->  Gini_Index | -.381 |
| Hofst3_LTO  <-->  Gini_Index | -.437 |
| Hofst3_IDV  <-->  Govt_Expdt_Pop | -.195 |

**Variances: (Group number 1 - Default model)**

|  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| Hofst3_PDI | 527.850 | 93.312 | 5.657 | *** |  |
| Hofst3_IDV | 547.148 | 95.248 | 5.744 | *** |  |
| Hofst3_LTO | 544.962 | 96.337 | 5.657 | *** |  |
| GDP_POP | 205.124 | 34.655 | 5.919 | *** |  |
| Gini_Index | 62.943 | 10.732 | 5.865 | *** |  |
| Hofst3_MAS | 367.716 | 65.004 | 5.657 | *** |  |
| Hofst3_UAI | 515.412 | 91.113 | 5.657 | *** |  |
| Govt_Expdt_Pop | 3942335.912 | 696913.114 | 5.657 | *** |  |
| e1 | .230 | .041 | 5.657 | *** |  |
| e2 | 50.381 | 8.906 | 5.657 | *** |  |

**Squared Multiple Correlations: (Group number 1 - Default model)**

|  | Estimate |
|---|---|
| Tot_Groc_Pop | .804 |
| OwnLabel_MS | .509 |

## Model Fit Summary

**CMIN**

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 30 | 33.939 | 25 | .109 | 1.358 |
| Saturated model | 55 | .000 | 0 |  |  |
| Independence model | 10 | 295.884 | 45 | .000 | 6.575 |

**RMR, GFI**

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | 941.979 | .903 | .786 | .410 |
| Saturated model | .000 | 1.000 |  |  |
| Independence model | 2041.393 | .445 | .322 | .364 |

**Baseline Comparisons**

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .885 | .794 | .967 | .936 | .964 |
| Saturated model | 1.000 |  | 1.000 |  | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**Parsimony-Adjusted Measures**

| Model | PRATIO | PNFI | PCFI |
|---|---|---|---|
| Default model | .556 | .492 | .536 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1.000 | .000 | .000 |

**NCP**

| Model | NCP | LO 90 | HI 90 |
|---|---|---|---|
| Default model | 8.939 | .000 | 28.313 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 250.884 | 200.188 | 309.075 |

**FMIN**

| Model | FMIN | F0 | LO 90 | HI 90 |
|---|---|---|---|---|
| Default model | .530 | .140 | .000 | .442 |
| Saturated model | .000 | .000 | .000 | .000 |
| Independence model | 4.623 | 3.920 | 3.128 | 4.829 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .075 | .000 | .133 | .252 |
| Independence model | .295 | .264 | .328 | .000 |

**AIC**

| Model | AIC | BCC | BIC | CAIC |
|---|---|---|---|---|
| Default model | 93.939 | 106.392 | 159.171 | 189.171 |
| Saturated model | 110.000 | 132.830 | 229.591 | 284.591 |
| Independence model | 315.884 | 320.034 | 337.627 | 347.627 |

**ECVI**

| Model | ECVI | LO 90 | HI 90 | MECVI |
|---|---|---|---|---|
| Default model | 1.468 | 1.328 | 1.771 | 1.662 |
| Saturated model | 1.719 | 1.719 | 1.719 | 2.075 |
| Independence model | 4.936 | 4.144 | 5.845 | 5.001 |

**HOELTER**

| Model | HOELTER .05 | HOELTER .01 |
|---|---|---|
| Default model | 72 | 84 |
| Independence model | 14 | 16 |

## Appendix 6: Amos Output of Model 4

<u>**Notes for Model (Default model)**</u>

**Computation of degrees of freedom (Default model)**

|  |  |
|---|---|
| Number of distinct sample moments: | 55 |
| Number of distinct parameters to be estimated: | 35 |
| Degrees of freedom (55 - 35): | 20 |

**Result (Default model)**

Minimum was achieved
Chi-square = 22.852
Degrees of freedom = 20
Probability level = .296

**Estimates (Group number 1 - Default model)**

**Scalar Estimates (Group number 1 - Default model)**

**Maximum Likelihood Estimates**

**Regression Weights: (Group number 1 - Default model)**

|  |  |  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .032 | .006 | 5.571 | *** | |
| Tot_Groc_Pop | <--- | Gini_Index | -.016 | .010 | -1.654 | .098 | |
| Tot_Groc_Pop | <--- | Hofst3_PDI | -.009 | .004 | -2.575 | .010 | |
| Tot_Groc_Pop | <--- | Hofst3_IDV | .017 | .004 | 4.618 | *** | |
| Tot_Groc_Pop | <--- | Hofst3_MAS | -.004 | .003 | -1.189 | .235 | |
| Tot_Groc_Pop | <--- | Hofst3_UAI | .013 | .003 | 4.718 | *** | |
| Tot_Groc_Pop | <--- | Hofst3_LTO | -.002 | .003 | -.724 | .469 | |
| Tot_Groc_Pop | <--- | Govt_Expdt_Pop | .000 | .000 | .475 | .635 | |
| OwnLabel_MS | <--- | Hofst3_PDI | -.019 | .049 | -.381 | .703 | |
| OwnLabel_MS | <--- | Hofst3_IDV | .122 | .055 | 2.204 | .028 | |
| OwnLabel_MS | <--- | Hofst3_LTO | .075 | .035 | 2.127 | .033 | |
| OwnLabel_MS | <--- | Tot_Groc_Pop | 4.132 | 1.355 | 3.050 | .002 | |
| OwnLabel_MS | <--- | Hofst3_UAI | -.004 | .038 | -.096 | .923 | |
| OwnLabel_MS | <--- | Hofst3_MAS | .022 | .043 | .507 | .612 | |

**Standardized Regression Weights: (Group number 1 - Default model)**

|  |  |  | Estimate |
|---|---|---|---|
| Tot_Groc_Pop | <--- | GDP_POP | .423 |
| Tot_Groc_Pop | <--- | Gini_Index | -.116 |

|  | Estimate |
|---|---|
| Tot_Groc_Pop  <---  Hofst3_PDI | -.192 |
| Tot_Groc_Pop  <---  Hofst3_IDV | .359 |
| Tot_Groc_Pop  <---  Hofst3_MAS | -.066 |
| Tot_Groc_Pop  <---  Hofst3_UAI | .267 |
| Tot_Groc_Pop  <---  Hofst3_LTO | -.047 |
| Tot_Groc_Pop  <---  Govt_Expdt_Pop | .027 |
| OwnLabel_MS  <---  Hofst3_PDI | -.044 |
| OwnLabel_MS  <---  Hofst3_IDV | .287 |
| OwnLabel_MS  <---  Hofst3_LTO | .178 |
| OwnLabel_MS  <---  Tot_Groc_Pop | .451 |
| OwnLabel_MS  <---  Hofst3_UAI | -.008 |
| OwnLabel_MS  <---  Hofst3_MAS | .042 |

**Covariances: (Group number 1 - Default model)**

|  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| GDP_POP   <-->  Gini_Index | -48.312 | 14.149 | -3.415 | *** | |
| GDP_POP   <-->  Govt_Expdt_Pop | -5089.319 | 2881.675 | -1.766 | .077 | |
| Hofst3_PDI  <-->  Hofst3_IDV | -322.939 | 77.266 | -4.180 | *** | |
| Hofst3_PDI  <-->  GDP_POP | -169.622 | 44.065 | -3.849 | *** | |
| Hofst3_IDV  <-->  GDP_POP | 187.754 | 45.504 | 4.126 | *** | |
| GDP_POP   <-->  Hofst3_UAI | -53.370 | 31.089 | -1.717 | .086 | |
| Hofst3_LTO  <-->  GDP_POP | 81.239 | 33.872 | 2.398 | .016 | |
| Hofst3_PDI  <-->  Gini_Index | 68.911 | 22.228 | 3.100 | .002 | |
| Hofst3_IDV  <-->  Gini_Index | -70.662 | 22.286 | -3.171 | .002 | |
| Hofst3_LTO  <-->  Gini_Index | -80.972 | 23.254 | -3.482 | *** | |
| Hofst3_IDV  <-->  Govt_Expdt_Pop | -9072.353 | 4650.327 | -1.951 | .051 | |

**Correlations: (Group number 1 - Default model)**

|  | Estimate |
|---|---|
| GDP_POP   <-->  Gini_Index | -.425 |
| GDP_POP   <-->  Govt_Expdt_Pop | -.179 |
| Hofst3_PDI  <-->  Hofst3_IDV | -.601 |
| Hofst3_PDI  <-->  GDP_POP | -.515 |
| Hofst3_IDV  <-->  GDP_POP | .560 |
| GDP_POP   <-->  Hofst3_UAI | -.164 |
| Hofst3_LTO  <-->  GDP_POP | .243 |
| Hofst3_PDI  <-->  Gini_Index | .378 |
| Hofst3_IDV  <-->  Gini_Index | -.381 |
| Hofst3_LTO  <-->  Gini_Index | -.437 |
| Hofst3_IDV  <-->  Govt_Expdt_Pop | -.195 |

**Variances: (Group number 1 - Default model)**

|  | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|
| Hofst3_PDI | 527.850 | 93.312 | 5.657 | *** | |
| Hofst3_IDV | 547.148 | 95.248 | 5.744 | *** | |
| Hofst3_LTO | 544.962 | 96.337 | 5.657 | *** | |
| GDP_POP | 205.124 | 34.655 | 5.919 | *** | |
| Gini_Index | 62.943 | 10.732 | 5.865 | *** | |
| Hofst3_MAS | 367.716 | 65.004 | 5.657 | *** | |
| Hofst3_UAI | 515.412 | 91.113 | 5.657 | *** | |
| Govt_Expdt_Pop | 3942335.912 | 696913.114 | 5.657 | *** | |
| e1 | .230 | .041 | 5.657 | *** | |
| e2 | 42.368 | 7.490 | 5.657 | *** | |

**Squared Multiple Correlations: (Group number 1 - Default model)**

|  | Estimate |
|---|---|
| Tot_Groc_Pop | .804 |
| OwnLabel_MS | .570 |

# Model Fit Summary

**CMIN**

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---|---|---|---|---|---|
| Default model | 35 | 22.852 | 20 | .296 | 1.143 |
| Saturated model | 55 | .000 | 0 | | |
| Independence model | 10 | 295.884 | 45 | .000 | 6.575 |

**RMR, GFI**

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | 918.464 | .937 | .828 | .341 |
| Saturated model | .000 | 1.000 | | |
| Independence model | 2041.393 | .445 | .322 | .364 |

**Baseline Comparisons**

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .923 | .826 | .990 | .974 | .989 |
| Saturated model | 1.000 | | 1.000 | | 1.000 |
| Independence model | .000 | .000 | .000 | .000 | .000 |

**Parsimony-Adjusted Measures**

| Model | PRATIO | PNFI | PCFI |
|---|---|---|---|
| Default model | .444 | .410 | .439 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 1.000 | .000 | .000 |

**NCP**

| Model | NCP | LO 90 | HI 90 |
|---|---|---|---|
| Default model | 2.852 | .000 | 18.900 |
| Saturated model | .000 | .000 | .000 |
| Independence model | 250.884 | 200.188 | 309.075 |

**FMIN**

| Model | FMIN | F0 | LO 90 | HI 90 |
|---|---|---|---|---|
| Default model | .357 | .045 | .000 | .295 |
| Saturated model | .000 | .000 | .000 | .000 |
| Independence model | 4.623 | 3.920 | 3.128 | 4.829 |

**RMSEA**

| Model | RMSEA | LO 90 | HI 90 | PCLOSE |
|---|---|---|---|---|
| Default model | .047 | .000 | .122 | .478 |
| Independence model | .295 | .264 | .328 | .000 |

**AIC**

| Model | AIC | BCC | BIC | CAIC |
|---|---|---|---|---|
| Default model | 92.852 | 107.380 | 168.956 | 203.956 |
| Saturated model | 110.000 | 132.830 | 229.591 | 284.591 |
| Independence model | 315.884 | 320.034 | 337.627 | 347.627 |

**ECVI**

| Model | ECVI | LO 90 | HI 90 | MECVI |
|---|---|---|---|---|
| Default model | 1.451 | 1.406 | 1.702 | 1.678 |
| Saturated model | 1.719 | 1.719 | 1.719 | 2.075 |
| Independence model | 4.936 | 4.144 | 5.845 | 5.001 |

**HOELTER**

| Model | HOELTER .05 | HOELTER .01 |
|---|---|---|
| Default model | 88 | 106 |
| Independence model | 14 | 16 |

## **Appendix 7: Scores of Hofstede Five Cultural Dimensions**

| Country | Power Distance | Individualism | Masculinity | Uncertainty Avoidance | Long-Term Orientation |
|---|---|---|---|---|---|
| Argentina | 49 | 46 | 56 | 86 | 20 |
| Australia | 38 | 90 | 61 | 51 | 21 |
| Austria | 11 | 55 | 79 | 70 | 60 |
| Belgium | 61 | 78 | 43 | 97 | 82 |
| Brazil | 69 | 38 | 49 | 76 | 44 |
| Bulgaria | 70 | 30 | 40 | 85 | 69 |
| Canada | 39 | 80 | 52 | 48 | 36 |
| Chile | 63 | 23 | 28 | 86 | 28 |
| China | 80 | 20 | 66 | 30 | 87 |
| Colombia | 66 | 13 | 64 | 80 | 13 |
| Costa Rica | 35 | 15 | 21 | 86 | 13 |
| Croatia | 73 | 33 | 40 | 80 | 58 |
| Czech Republic | 57 | 58 | 57 | 74 | 70 |
| Denmark | 18 | 74 | 16 | 23 | 35 |
| Ecuador | 78 | 8 | 63 | 67 | 15 |
| Egypt | 80 | 38 | 53 | 68 | 7 |
| Estonia | 40 | 60 | 30 | 60 | 82 |
| Finland | 33 | 63 | 26 | 59 | 38 |
| France | 68 | 71 | 43 | 86 | 63 |
| Germany | 35 | 67 | 66 | 65 | 83 |
| Greece | 60 | 35 | 57 | 112 | 44 |
| Guatemala | 95 | 6 | 37 | 101 | 12 |
| Hong Kong | 68 | 25 | 57 | 29 | 61 |
| Hungary | 46 | 80 | 88 | 82 | 58 |
| India | 77 | 48 | 56 | 40 | 51 |
| Indonesia | 78 | 14 | 46 | 48 | 62 |
| Iran | 58 | 41 | 43 | 59 | 14 |
| Ireland | 28 | 70 | 68 | 35 | 24 |
| Israel | 13 | 54 | 47 | 81 | 38 |
| Italy | 50 | 76 | 70 | 75 | 61 |
| Japan | 54 | 46 | 95 | 92 | 88 |
| Kenya | 94 | 27 | 41 | 52 | 30 |
| Malaysia | 104 | 26 | 50 | 36 | 41 |
| Mexico | 81 | 30 | 69 | 82 | 24 |
| Morocco | 70 | 46 | 53 | 68 | 14 |
| Netherlands | 38 | 80 | 14 | 53 | 67 |
| New Zealand | 22 | 79 | 58 | 49 | 33 |
| Nigeria | 77 | 20 | 46 | 54 | 13 |
| Norway | 31 | 69 | 8 | 50 | 35 |
| Pakistan | 55 | 14 | 50 | 70 | 50 |
| Peru | 64 | 16 | 42 | 87 | 25 |
| Philippines | 94 | 32 | 64 | 44 | 27 |
| Poland | 68 | 60 | 64 | 93 | 38 |
| Portugal | 63 | 27 | 31 | 104 | 28 |
| Romania | 90 | 30 | 42 | 90 | 52 |

| | | | | | |
|---|---|---|---|---|---|
| Russia | 93 | 39 | 36 | 95 | 81 |
| Saudi Arabia | 80 | 38 | 53 | 68 | 36 |
| Serbia | 86 | 25 | 43 | 92 | 52 |
| Singapore | 74 | 20 | 48 | 8 | 72 |
| Slovakia | 14 | 52 | 110 | 51 | 77 |
| Slovenia | 11 | 27 | 19 | 88 | 49 |
| South Africa | 49 | 65 | 63 | 49 | 34 |
| South Korea | 60 | 18 | 39 | 85 | 100 |
| Spain | 57 | 51 | 42 | 86 | 48 |
| Sweden | 31 | 71 | 5 | 29 | 53 |
| Switzerland | 26 | 69 | 72 | 56 | 74 |
| Taiwan | 58 | 17 | 45 | 69 | 93 |
| Thailand | 64 | 20 | 34 | 64 | 32 |
| Turkey | 66 | 37 | 45 | 85 | 46 |
| United Arab Emirates | 80 | 38 | 53 | 68 | 36 |
| United Kingdom | 35 | 89 | 66 | 35 | 51 |
| United States | 40 | 91 | 62 | 46 | 26 |
| Uruguay | 61 | 36 | 38 | 100 | 26 |
| Venezuela | 81 | 12 | 73 | 76 | 16 |
| Vietnam | 70 | 20 | 40 | 30 | 57 |

Source: Hofstede et al., (2010)