

UNIVERSITY OF TARTU
Faculty of Social Sciences
School of Economics and Business Administration

Rustam Asadli

Brand Equity of A. Le Coq beer

Master's thesis

Supervisor: Dafnis N. Coudounaris (Associate Professor)

Tartu 2020

Name and signature of supervisor: Dafnis N. Coudounaris

Allowed for defence on:
(date)

I have written this master's thesis independently. All viewpoints of other authors, literary sources and data from elsewhere used for writing this paper have been referenced.

.....
(signature of author)

Table of Contents

| | |
|--|-----------|
| Abstract | 4 |
| 1. Introduction | 5 |
| 2. Literature review | 8 |
| <i>Theoretical background</i> | 8 |
| <i>Brand equity conceptualization and its dimensions</i> | 8 |
| <i>Hypotheses building and the conceptual model</i> | 13 |
| 3. Methodology | 18 |
| <i>Brand selection - The case study of A. Le Coq</i> | 18 |
| <i>Scale development</i> | 20 |
| <i>Sample selection and fieldwork</i> | 22 |
| <i>Data analysis and techniques</i> | 24 |
| 4. Results | 25 |
| <i>Profile of participants</i> | 25 |
| <i>T-test Analysis Results</i> | 25 |
| <i>Regression Analysis Results</i> | 29 |
| <i>Status of hypotheses</i> | 34 |
| <i>Partial Least Squares Results</i> | 36 |
| 5. Conclusions | 41 |
| <i>Theoretical and managerial implications</i> | 42 |
| <i>Limitations and further research</i> | 43 |
| Appendices | 54 |
| <i>Appendix A</i> | 54 |
| <i>Appendix B</i> | 72 |
| <i>Appendix C</i> | 75 |
| <i>Appendix D</i> | 76 |

Abstract

This study aims to find out whether brand equity components of A. Le Coq beer have an impact on its overall brand equity in the Estonian brewery market. In order to achieve this goal, an empirical study is conducted based on Jilapalli and Jilapalli's (2014) customer-based brand equity model. The author utilized 3 different methods – t-test and regression analysis, and Partial Least Square (PLS) approach of Structural Equation Modelling (SEM) to analyze the data which collected from a sample of 120 University of Tartu students. Results show that brand meaning has a strong positive effect on attachment strength which influences relationship factors – commitment, trust, satisfaction significantly. Another major finding is that two of the relationship factors – trust and satisfaction play a significant role in the development of brand equity of A. Le Coq beer. The research provides useful insights for brewery marketing managers to develop strong brand equity and contributes to the brand equity literature.

Keywords: brand equity, branding, brewery sector, beer

1. Introduction

Beer has become the most popular alcoholic beverage in Estonia where its consumption per capita was 80 litres in 2018 which was higher than EU-27 average (Brewers of Europe, 2019). Estonia held second place in the Baltic sea region and outranked Finland with its beer consumption in 2016 (Brewers of Europe, 2019). As reported by The Brewers of Europe, in 2018 93.5 million litres of beer was consumed in Estonia, which was 90.5 million and 88.8 million litres of beer respectively in 2017 and 2016. Per capita consumption of beer in Estonia has remained quite stable over years between 2015 and 2018 with around 81 million litres of beer on average (Brewers of Europe, 2019).

Estonian brewery market is smallest both in Central and Eastern Europe (CEE) and Commonwealth of Independent States (CIS) and highly concentrated with two major players – A. Le Coq and Saku that altogether possess around 80 percent of the market share (Larimo et al., 2013). The market research by Williams & Marshall Strategy (2019) demonstrates that beer market in Estonia was worth 269.00 million USD in 2014 where high degree of competition is observed. Although, recent market trends indicate that local beer market is expanding, and number of local microbreweries are increasing by around 20 percent per year (Invest in Estonia, 2019). Even though market share of these microbreweries is around 1.5% of overall Estonian beer market, they can trigger the competition in market, thus would benefit customers in the long run (Invest in Estonia, 2019).

Being one of the major competitors in the market, A. Le Coq stands out among other brands and chosen by wide range of customers in Estonian beer market. Its distinctive features are being customer-centered, innovative, responsible which lead its way to market leadership. Therefore, the reason behind selection of A. Le Coq is company's long-term existence with more than two centuries, its strong reputation of being most innovative beer manufacturer and being the market leader in Estonia. A. Le Coq is considered as one of the leading brands of Estonia and holds a special place in customers' heart with its quality and rich product range, marketing activities, social responsibility initiatives, and in particular with its famous brand. However, in this paper, the author concentrates solely on the brewery side of A. Le Coq. Therefore, the paper introduces an expression – “A. Le Coq beer” to emphasize the direction of the research and differentiate it from the corporate brand of A. Le Coq.

Even though beer maintain its leadership position as being most popular alcoholic beverage in Estonia, there is lack of academic research on beer brand value from customers' perspective.

Case study conducted by Larimo et al. (2013) investigates the factors that affect market share of Estonian breweries as mainly concentrating on companies' marketing strategies and discussing their marketing mix activities. At the same time, it must be taken into consideration that consumer's purchasing behavior is strongly affected by not only price or quality of a product but also its brand equity (Porral et al., 2013). Therefore, investigating the brand equity of A. Le Coq beer and its antecedents is essential.

Although brand equity has attracted tremendous attention from scholars in recent years, the number of researches which analyze the impact of brand equity components on overall brand equity based on empirical data is scarce. One particular study was conducted by Jillapalli and Jillapalli (2014) who constructed, advanced, and tested empirically the customer-based brand equity of professors. Dennis et al. (2016) afterwards unveiled the brand equity of chosen higher education institute (HEI) by using Jillapalli and Jillapalli's (2014) customer-based brand equity model as well.

This study aims to find out whether brand equity components of A. Le Coq beer have an impact on its overall brand equity in the Estonian brewery market. The study's research questions are: What are the antecedents of the Brand Equity of A. Le Coq beer and which relationships are statistically significant ones?

In order to achieve this goal and answer to research questions, an empirical study is conducted based on Jillapalli and Jillapalli's (2014) customer-based brand equity model, and the following tasks are performed. In this paper, t test of means' comparison is performed with the intention of revealing whether there are statistically significant differences between different populations based on tested variables. Moreover, by doing regression analysis, the author unveils the relationships between brand equity components and formation of brand equity of A. Le Coq beer and indicate whether these relationships are significant or not. Partial Least Square (PLS) approach is employed for testing the badness-of-fit of the model to the data; examining the collinearity issues of the model, as well as evaluating the construct reliability and validity. In order to collect the empirical data for this research the author conducts self-administered structured online and offline surveys among consumers of A. Le Coq beer in Estonia.

The research contributes to the identified knowledge gap in brand equity literature by providing an empirically tested study. On top of that, this research tests the ecological validity of customer-based brand equity model devised by Jillapalli and Jillapalli (2014), in order to see whether the results would hold in the different context – Estonian brewery market. Since the

case study approach is employed on the example of A. Le Coq, this research contributes to the scarcely investigated area of breweries' brand equity, as well as provides brewery marketing managers with useful insights to develop strong brand equity. Additionally, the contribution of this study lies to the fact that it uses established constructs from other contexts specifically measuring brand equity of universities i.e. Dennis et al. (2016) and transferring them to the case of A. Le Coq beer in Estonia.

The rest of the paper is structured in the following order. Literature review and conceptual model are discussed in Chapter 2, where main brand equity concepts are presented, and hypotheses are introduced. Then, the author explains the adopted methodology in Chapter 3, alongside with data description and descriptive statistics. Chapter 4 is dedicated to results, findings and their interpretations. Finally, the paper is concluded by giving an overview of the thesis in Chapter 5.

2. Literature review

Theoretical background

The theory of trust/commitment is used in this study. This study considers that the brand equity is variable depending on the trust/commitment relationship between consumers of A. Le Coq beer and the specific firm. What is most important is how weak or strong the trust/commitment relationship between consumers and the firm. In a study by Hwang and Burgers (1997) on the properties of trust, pointed out that trust “is a necessary but not sufficient condition for cooperation and that trust supports cooperation through easing two very different types of risks, namely, the risk of being victimized and the risk of losing a trustworthy partner, p. 70”. Additionally, the authors concluded that “while trust eliminates all fear, full trust does not eliminate all greed, p. 70” thus all greed to cheat your partner/collaborator.

Furthermore, Hwang (2006, pp. 423-438) argues that trust and time horizon are important in a relationship. According to that study, the time horizon depends on the existing and future environmental parameters that the relationship may encounter.

Brand equity conceptualization and its dimensions

This study defines the brand concept as a combination of components that helps us to recognize and distinguish the products and services of one company from its competitor in the market (Kotler & Keller, 2012). Nowadays, products and services are not the only subjects of branding efforts whereas branding people, places, events, political parties are a new trend which gained a substantial amount of success.

Being a popular concept, a brand is explained in different ways over the years. American Marketing Association (2020) define brand as a distinctive feature that identifies product or service and differentiate it from another. Roper and Fill (2012), meanwhile, approach to notion of the brand from an emotional point of view and describe it as a combination of sentiments that comes to one’s mind, when the brand is mentioned or remembered. Payne et al. (2009) emphasize the customer experience in the creation of value in the service industry and equate the brand with customer experience.

Branding activities are considered important in order to be competitive in the marketplace since strong brands positively affect the companies in the long run and help them to acquire a bigger market share and more profit. Powerful brands can be built up through robust marketing campaigns in the long term and thus cause the creation of competitive advantage in the market

(Yoo et al., 2000). Evaluation of brand in order to indicate how much value it brings to customers is required for making strategic marketing decisions and thus led company managers and marketing researchers to emphasize the Brand Equity concept (Aaker, 2009; Kotler & Keller, 2012; Porral et al., 2013). Brand equity is a well-investigated concept by scholars from both marketing and other disciplines where two main motivations are noticed in most of the conducted researches (Keller, 2012). From a financial point of view, brand equity is utilized for assessing the brand's overall monetary value for merger and acquisition transactions, also used as an accounting element, more precisely as a substantial asset in the balance sheet (Keller, 2012). The second perspective which is also the main focus in this research examines the brand equity concept from the customer's standpoint while emphasizing its value on the customer's mind. Keller's (2012) comprehensive work is considered very important since the author proposes a conceptual framework for brand equity from customers' point of view as drawing attention to how a customer reacts to marketing mix efforts.

Scholars are on the same page that brand equity concept has multidimensional nature where Aaker (1991; 1996) indicates four dimensions, namely brand loyalty, brand awareness, perceived quality and brand associations while Keller (1993) emphasizes the role of brand knowledge in association with brand awareness and brand image (as cited in Yoo et al., 2000).

Even though the concept of brand equity is well known and widely recognized by marketing circles, not everybody is on the same page with them, such as Ehrenberg et al. (1990) with their theory of double jeopardy. Mitchell (1992) suggests that firms should focus on increasing their market share if they want to have a strong brand with a higher frequency of repeat buying and many customers since the concept of brand equity does not exist (as cited in Chaudhuri, 1995, p. 26). The theory of double jeopardy can be defined as a situation where popular brands with bigger market share are chosen more frequently by more customers because of the attention and distribution advantages they get, whilst small market share brands get less attention, therefore occasional purchases with few buyers (Chaudhuri, 1995; Fader & Schmittlein, 1993). Brand Equity in the brewery market has been explored by Dawes (2008) whilst focusing on empirical generalizations – repertoire buying, double jeopardy, duplication of purchase – which are investigated by Ehrenberg and his colleagues (1990). In order to test the empirical generalizations of Ehrenberg et al. (1990), field research is performed where face-to-face interviews are conducted among the attendees of football matches at the stadium in Australia. Dawes (2008) comes to the conclusion that consumers should not be treated as very loyal since they purchase several beer brands from a bundle of brands. These brands mainly keep large

market shares with high levels of loyalty and instead of competing against only one competitor, as they direct all the marketing efforts to the whole market.

However, these two concepts – brand equity and double jeopardy, are contradicted to each other, Chaudhuri (1995) suggests that both of them have a significant impact on market share and other brand equity outcomes while drawing attention to the relationship between customer-based outcomes and brand equity outcomes. In summary, the author argues that the “double jeopardy” theory can be observed as a direct relationship whereas the “brand equity” theory contains intervening factors, namely *brand loyalty* while showing an indirect relationship. Yoo et al. (2000) investigate the impact of selected marketing mix efforts on brand equity by indicating the relationship between marketing activities and brand equity dimensions, thus overall brand equity. A meanwhile comparative study, mainly concentrating on brand reputation and its intermediary role made by Chaudhuri (2002), in order to examine the effect of marketing efforts such as advertising on brand equity outcomes. Both studies confirm the tremendous impact of marketing mix elements on creating brand equity, whilst Chaudhuri (2002) states that brand reputation can be used as an important tool for assessing the brand’s value and overall marketing activities in order to make a strategic managerial decision. Mongkol's (2014) empirical research suggests that integrated marketing communication (ICM) tools play a crucial role in building strong brand equity by examining a beverage company from Thailand.

Marketing efforts in order to create strong and positive brand equity not always result in desirable outcomes since the recipe for successful branding is not simple and straightforward, in fact it is very complex and requires a comprehensive approach. Burmann et al. (2009) introduce a two-dimensional concept in order to demonstrate a two-sided relationship of branding which has dynamic character while focusing on brand identity and brand image by using Erikson's (1994) theory of identity. Goi et al. (2014) introduce empirical research for examining the branding activities, particularly the brand identity of higher education institutes (HEI) where the findings suggest a two-dimensional model that visual and verbal identity are emphasized.

Consumers quite often make their purchasing decision influenced by their social environment (Fischer et al., 2010; Grubb & Grathwohl, 1967). In their empirical research Escalas and Bettman (2005) discuss the importance of brand meaning on an individual’s self-perception and how one expresses him/herself to surroundings by using brands as an instrument. It is suggested one’s belonging to a certain community can significantly affect the perception of brand image,

as well as the independence level of one and certain characteristics of a brand. Dennis et al. (2016) conduct empirical research aiming to unveil brand equity of chosen higher education institute (HEI) by evaluating the relationship between both current and graduated students and brand attributes of HEI. The authors emphasize the impact of brand meaning on the brand equity of the higher education institute where they use Jillapalli and Jillapalli's (2014) an empirical study on the professor-brand equity relationship.

Jillapalli and Jillapalli (2014) establish their framework on Keller's (1993) customer-based brand equity (CBBE) model and relationship marketing theory aiming to unveil professor-student relation in light of branding concepts. They conclude their findings by emphasizing the importance of the professor's brand-building effort and its long-term benefits on both higher education institutes and professors.

Comparative analysis done by Park et al. (2010) conceptualizes brand attachment notion by defining its elements – brand self-connections and prominence meanwhile mentions dissimilarities between brand attachment and brand attitude strength. Authors empirically argue the weight of these elements on overall brand attachment by formulating measurement method, therefore concluding as both brand self-connection and prominence are vital for brand attachment. Results emphasize the fact that brand attachment plays a more prominent and effective role as a predictor of consumer behaviour rather than brand attitude strength.

Porrall et al. (2013) perform empirical research in order to examine the brand equity of the local and imported beers in the Spanish market while testing Aaker's (1991) Brand Equity model. Authors define Brand Equity as “an intangible asset, being a source of long-term competitive advantage in the marketplace”. They emphasize that Brand Equity sources - brand awareness, perceived quality, brand associations, and loyalty - are vital for grasping the Brand Equity concept clearly, and they have a significant impact on it and therefore on consumer behaviour. Structural equation modelling (SEM) is applied by aiming to identify the possible effects of Brand Equity on Spanish beer consumers' behaviour which are the purchase intention and willingness to pay a premium price for the product. Their findings are in line with Aaker's Brand equity model where Brand Equity sources have a significant and positive impact on it while the brand image is considered as the most powerful influence.

The empirical research was done by Atilgan et al. (2005) based on Aaker's (1991) brand equity model, examines brand equity of specific products in the Turkey beverage market. Similar research is conducted by Vinh (2017) where he investigates the brand equity of Heineken in the

Vietnamese beer market. Results from both studies seem to be in line with antecedents as the impact of brand equity dimensions on overall brand equity is noteworthy.

Another research is carried out aiming to indicate the branding activities in service companies by Berry (2000) while stressing how crucial to have strong “Brand Equity” as they do not have any tangible assets that can be used to communicate with potential consumers. The author demonstrates the brand-building efforts by using “Service-Branding Model” which displays the building blocks of service brand and how they connected to each other and emphasize that brand building is not specific for only tangible products, whereas service companies benefit from branding activities in order to reach to customers providing them with assurance about the service.

While most of the conceptual and empirical studies concentrate on the product side of the branding, some scholars try to draw attention to the concept of “corporate brand” (Balmer, 1995; Hatch & Schultz, 2001; Ind, 1997; Syed Alwi & Da Silva, 2007). The corporate brand seems to have a significant effect on customer’s purchasing behaviour where it can be a sign of high quality and satisfaction (Balmer & Gray, 2003; Syed Alwi & Da Silva, 2007). Syed Alwi and Da Silva (2007) conduct an empirical study in order to find out the locomotive factors of corporate brand image in the online environment by using de Chernatony and Christodoulides’s “triangle framework of corporate brands”. The authors summarize their research by emphasizing the importance of personalization and security, which can help the company to enhance the corporate brand image in an online setting while mentioning the notable impact of customer care and ease of use too. In this case study, Sandbacka et al. (2013) discuss corporate brand-building activities in the business-to-business context and model these activities in separate but as related blocks. The main focus of the research (Sandbacka et al., 2013) is micro industrial service companies where the contribution and participation of all stakeholders on the corporate brand-building process are emphasized.

Brand-building activities are applicable for not only products or services but also people, events, political parties, places, or even concepts or visions (Kotler & Keller, 2012; Kuhn et al., 2008). While most of the literature focuses on branding strategies in the business-to-consumer (B2C) context, Kuhn et al. (2008) endeavour to uncover the importance of branding in a business-to-business setting and its feasibility. This paper is addressed to conceptualize the brand equity model in a B2B context by Keller's (2003) customer-based brand equity model as a basis. Authors emphasize the observed differences in purchasing behaviours of organizational

buyers and present the modified version of the CBBE model in order to contribute to branding efforts In the B2B context.

In order to perform successful branding activities, managers should answer the following questions that will these activities affect positively the consumer's purchasing behaviour or even will be there any significant improvement in a brand-buyer relationship? Because not every brand responds the same way to branding efforts depending on its category characteristic which is argued thoroughly in the research by Fischer et al. (2010). Authors discuss whether branding-making activities hold the same degree of importance for every brand and meanwhile examine its impact on the company's economic situation. While explaining why brands are important for both consumer and company, two elements are emphasized: the brand's risk reduction and self-expression aspects. Fischer et al. (2010) suggest a new conceptual framework namely, BRiC (brand relevance in category) by strengthening it with empirical data which is relevant for 20 different product categories. Based on the findings, a couple of managerial recommendations are set out that can be beneficial for positioning the company's brand-building efforts.

Hypotheses building and the conceptual model

The presented conceptual model for unveiling the brand equity of A. Le Coq beer, which based on the study by Jillapalli and Jillapalli (2014), contains 12 hypotheses and 9 constructs. Jillapalli and Jillapalli (2014) built this conceptual model on the basis of Keller's CBBE model (Keller, 1993, 2001) and relationship marketing theory, and performed it in the context of professor brands in order to elicit its antecedents and the relationships between brand characteristics. In this research, the author utilizes the adaptation of this conceptual model by Dennis et al., (2016) where the brand characteristics – brand image, brand meaning, and brand identity added as antecedents of attachment strength and emphasize the impact of reputation on brand characteristics. Also the connections between attachment strength and relationship factors, namely commitment, trust, and satisfaction are depicted on our conceptual model and easy to spot. The conceptual model which shown in Figure 1, is finalized by displaying the effect of relationship factors on the brand equity of A. Le Coq beer.

The impact of reputation on brand characteristics

Reputation can be defined as a favourable view that customers hold of, where they differentiate a certain brand from another by evaluating its overall value and utility (Bhattacharya & Elsbach, 2002; Jillapalli and Jillapalli, 2014). Roper and Fill (2012) explain the reputation as a summary

that combines various views and perceptions shared by different people. In other words, brand reputation can be seen as an important indicator that displays how well the brand performs in the market in comparison with competitors (Dennis et al., 2016). Chaudhuri (2002) emphasizes the importance of brand reputation and refers to it as an important tool since it plays an immense role in making strategic managerial decisions. It is mentioned that cultivating a positive reputation is vital in order to become successful and profitable in the market (Herbig & Milewicz, 1995) meanwhile it requires proper branding and overall marketing activities. Reputation has an impact on the development of brand image by creating brand awareness which boosts brand image (Jillapalli & Jillapalli, 2014; Keller, 2001). Another explanation of brand reputation is given by Van Vught (2008) where he talks about it as a cumulative outcome of several activities in order to generate an external image. Reputation is discussed by Bosch et al. (2006) as a variable that creates a brand identity where a positive impact of reputation on brand identity is empirically tested and confirmed. Veloutsou and Moutinho (2009) stress the importance of brand meaning in a decision-making process where customers develop the symbolic meaning of brand through its reputation. Escalas and Bettman (2005) also discuss that reputation of a certain brand among the reference group plays a significant role in the selection of it, where the authors regard reference groups as a source of brand meaning. Therefore:

H_{1a}: A. Le Coq beer's brand reputation is significantly and positively related to the brand image of A. Le Coq beer.

H_{1b}: A. Le Coq beer's brand reputation is significantly and positively related to the brand meaning of A. Le Coq beer.

H_{1c}: A. Le Coq beer's brand reputation is significantly and positively related to the brand identity of A. Le Coq beer.

Brand characteristics and their impact on attachment strength

As it is already clear that, brand characteristics have a great ability to affect and change customer behavior significantly, where this influence can start before the actual purchasing process and last afterward.

It is observed that customers make their purchasing decisions not only based on rational arguments such as product's functionality and utility but also their subjective understanding of what a brand means to them (Levy, 1959). In their empirical research Escalas and Bettman (2005) discuss the importance of brand meaning on an individual's self-perception and how one expresses him/herself to surroundings by using brands as an instrument. Authors also draw

attention to the fact that customers develop their self-identities based on their brand selection and build up strong brand-customer relationships (Escalas & Bettman, 2005).

The next brand characteristic which is also part of the conceptual model is the brand identity which is defined as a set of distinctive brand associations that marketing managers endeavor to develop in order to differentiate their product from rest in the market (Aaker, 1996; Kapferer, 2008). The main purpose behind identity-building activities is to get a competitive advantage and to survive in the marketplace by showing what brand is capable to do to customers (Da Silveira et al., 2013). The development of a strong and clear brand identity can enable deep brand-customer attachment and accelerate the overall brand equity (Ghodeswar, 2008).

Brand image is one of the well-researched concepts by scholars over time and is described as a customer's perception of a brand that is strongly affected by brand associations that emerged and developed in their mind over some time (Keller, 2003). These brand associations include all kinds of beliefs, ideas, visuals, thoughts (Kotler & Fox, 1995) which are held in customers' memory and have a notable impact on customer behavior (Kuhn et al., 2008). Companies prioritize their brand image activities in order to develop a strong relationship with the customers in the market, thus increase brand loyalty and maximize profit.

After defining and explaining the brand characteristics laconically, the significant effect of them on brand-self connection can be grasped, therefore attachment strength. Park et al. (2010) suggest that customers develop an attachment to the brand, where they are connected emotionally and cognitively to the brand, eventually consider it as part of themselves. It can be argued that accurate and complete branding activities strengthen the attachment between the brand and the self. These considerations are captured in the following hypotheses:

H2a: A. Le Coq's brand meaning is significantly and positively related to a customer's attachment to the brand of A. Le Coq beer.

H2b: A. Le Coq's brand identity is significantly and positively related to a customer's attachment to the brand of A. Le Coq beer.

H2c: A. Le Coq's brand image is significantly and positively related to a customer's attachment to the brand of A. Le Coq beer.

The impact of attachment strength on relationship factors

The notion of attachment strength plays a significant role in order to unveil the quality of the relationship between a customer and brand (Thomson, 2006). Feelings that emerged alongside attachment are essential for the brand-customer relationship (Fournier et al., 1998) and the more

this attachment becomes intense, the more enduring relationship is cultivated. In their study (Park et al., 2010), the authors mention the importance of attachment strength that can lead to positive emotions such as commitment, satisfaction, etc. It can be stated that attachment to the brand is vital for developing a brand-customer relationship, which is trustful, committed, and satisfied. Therefore:

H_{3a}: Customer's attachment to A. Le Coq beer is significantly and positively related to his/her commitment to the brand of A. Le Coq beer.

H_{3b}: Customer's attachment to A. Le Coq beer is significantly and positively related to his/her trust in the brand of A. Le Coq beer.

H_{3c}: Customer's attachment to A. Le Coq beer is significantly and positively related to his/her satisfaction in the brand of A. Le Coq beer.

Relationship factors and their role in the formation of brand equity of A. Le Coq beer

After reviewing the literature, the author defines trust as the willingness of one party to fall into the situation of being unguarded to the actions of another party whether or not his actions can be inspected (Mayer et al., 1995). Confidence plays an important role in the process of developing trust, where Morgan and Hunt (1994) describe trust as having confidence in another party's credibility and fairness. Furthermore, it can be said that trust emerges in this circumstance where trustor expects positive outcomes from counterpart's actions (J. C. Anderson & Narus, 1990) and holds a belief that he or she won't be taken advantage of. In conclusion, the value of trust in the brand-customer relationship should be emphasized since credibility and trustworthiness accelerate brand loyalty and brand advocacy which are indicators of strong and desired brand equity (Jillapalli and Jillapalli 2014; Keller 2001).

Commitment can be conceptualized as a process of preserving the existing relationship which is valuable and worth sustaining. One of the most well-known definitions of commitment is introduced by Morgan and Hunt (1994) where they describe it as one party's utmost efforts and desire to protect the ongoing relationship with an exchange partner. Moreover, attention can be drawn to the fact that strong commitment can lead to brand loyalty (Hennig-Thurau et al., 2002), where customers tend to perform repeated purchasing. Since it is known that brand loyalty is one of the essential blocks of the CBBE model in order to develop strong brand equity (Keller, 2001), the following statement can make sense: the stronger commitment is developed between customer and brand, the greater level of brand equity blossoms.

Sense of satisfaction refers to the customer's perception of the difference of expected and experienced performance result from the utilization of certain products or services (Hennig-

Thurau et al., 2002; Jillapalli and Jillapalli, 2014). The satisfaction level of a customer is related to how well his or her needs are fulfilled. Satisfied customers tend to be more engaged in the relationship with the brand, also they are keen to share their positive experience with others through word of mouth (Maru File et al., 1994; Yi, 1990). There are several pieces of research state that the notion of satisfaction plays an immense role in the emergence of brand loyalty and develops an emotional bond with the brand (E. W. Anderson et al., 1994; Zahorik & Rust, 1993). The author summarizes and comes to this conclusion that satisfied customers are likely to exhibit stronger levels of brand equity.

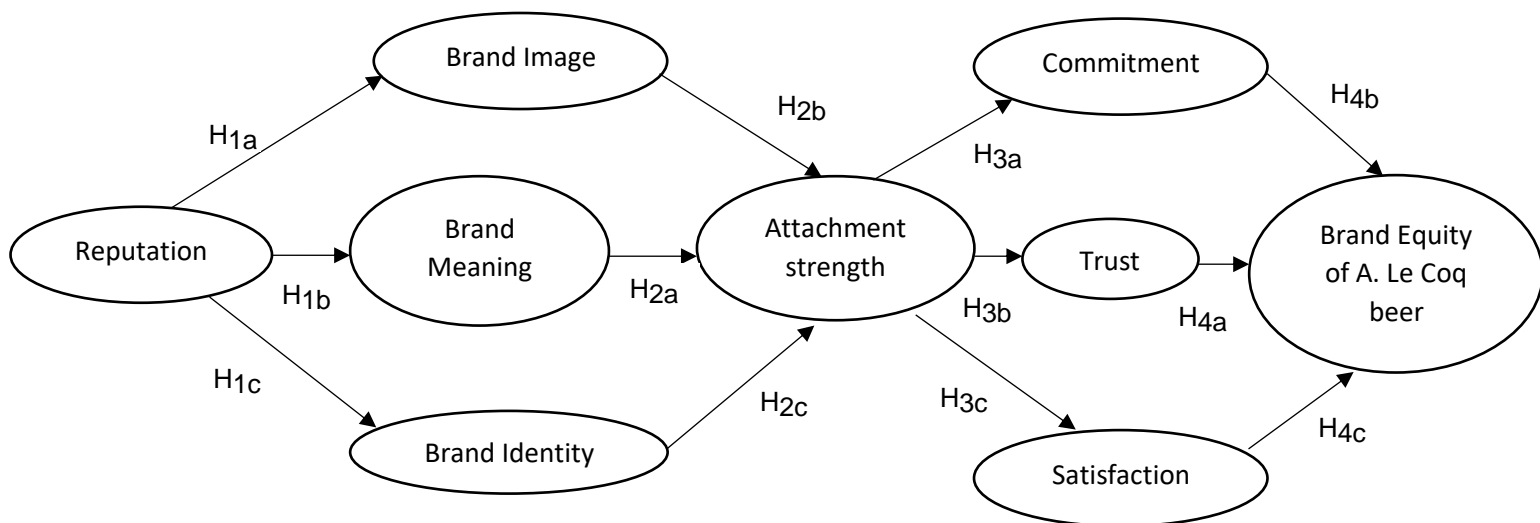
Keller (1993) stresses the necessity of positive, strong, and distinctive brand associations that customers hold, in order to maintain favourable customer-based brand equity. Desired brand associations are developed when customers genuinely believe that the brand is capable of meeting their expectations and fulfil their needs (Keller, 1993). Therefore, if customers are satisfied with the brand, show a strong commitment to the brand, and believe that brand can be trusted, it will lead to strong and desired brand equity. Since these aforementioned relationships factors have a significant effect on the occurrence of brand equity, the author presents these following hypotheses:

H4a: Customer’s trust to A. Le Coq beer is significantly and positively related to brand equity of A. Le Coq beer.

H4b: Customer’s commitment to A. Le Coq beer is significantly and positively related to brand equity of A. Le Coq beer.

H4c: Customer’s satisfaction to A. Le Coq beer is significantly and positively related to brand equity of A. Le Coq beer.

Figure 1: Proposed conceptual model of brand equity of A. Le Coq beer.



Source: Adapted from Jillapalli & Jillapalli (2014, p 25); Dennis et al., (2016, p 3051)

3. Methodology

Brand selection - The case study of A. Le Coq¹

A. Le Coq (A. Le Coq, 2020) is the biggest and oldest beverage manufacturer in Estonia that originated in 1807 in Prussia where Le Coq family was primarily busy with beverage trading. During its two centuries-long history, A. Le Coq experienced different kinds of ownership and economic situations, but the company still remain its strong presence on the Estonian beverage market where it holds top positions in every operated market segment. Although A. Le Coq dominates the Estonian beverage market in the production of drinks, the role of beer production on its evolution to being one of the leading brands of Estonia should be emphasized.

The increasing popularity of beer and its industrial production in Estonia is associated with Baltic Germans as they brought the knowledge on how to produce beer and established breweries in Saku and Tartu early 1800s which were pioneers in Estonia (Larimo et al., 2013). It is no coincidence that A. Le Coq is headquartered in Tartu since its presence in Estonia started in 1912 by acquiring Tivoli Ltd. which was formed by several breweries from Tartu, specifically breweries owned by B. J. Hesse(1800) and J. R. Schramm(1826). These breweries are counted as predecessors of A. Le Coq, where they turned Tartu into a real beer town with other small beer manufacturers by the end of the 19th century.

A. Le Coq gradually expanded its impact area from Tartu through southern parts of Estonia during the 1920s and 1930s thanks to trust agreement which divided the country between two major players – A. Le Coq and Saku Brewery. After almost a century, this geographical distinction still can be observed on consumers' behavior as geographical favoritism which may affect their purchasing decision. As time goes, this imaginary north-south distinction is slowly disappearing, whereby A. Le Coq has increased its influence in the northern part of the country and became one of the biggest players in the Estonian brewery market.

Acquisition of A. Le Coq in 1995 by Finnish company Olvi Oyj brought back not only the company's trademark which was changed to Tartu Õlletehas during the Soviet Era but also its glorious days which were seemed far away back then because of long and unsuccessful privatization attempts. This handover is considered a milestone for A. Le Coq since it played a major role in regaining its market share and competitiveness. As a result of immediate

¹ This section is heavily based on information obtained from the official website of A. Le Coq: <https://www.alecoq.ee/en/>

investments by the parent company – Olvi Oyj, beer production capacity hit 30 million liters in 1999 which was 13.5 million liters in 1995 before the acquisition (Larimo et al., 2013).

According to operations in various markets, A. Le Coq developed several well-known trademarks, which are dominating their market segments. The company performs in the brewery market under the A. Le Coq trademark as being one of the famous brands in Estonia which live through more than two hundred years already. Aura trademark covers soft drinks, such as flavored waters that were introduced to the Estonian beverage market for the first time by A. Le Coq. Ciders sold under the Fizz trademark have gained popularity not only in Estonia but also on the international level.

A. Le Coq expresses its vision as becoming the most attractive and valued Estonian beverage manufacturer by creating positive experiences for its customers all the time. As considered the most innovative food industry company in Estonia, A. Le Coq launched several novelties onto the Estonian beverage market such as the first multipackage, relief can, foil-covered cone, and 0.25l beer bottle (Leading Brands of Estonia). Title of being the first Estonian company that produced cider belongs to A. Le Coq as the knowledge was acquired by parent company Olvi Oyj in 1999.

A. Le Coq plays an active role in Estonian society by using its reputation since one of the company values is “we are responsible”. In 2003, A. Le Coq established beer museum with the financial aid by Olvi Foundation to promote Estonian beer culture, furthermore, A. Le Coq’s industrial brewery history. The company supports various sports games and events in Estonia as a part of its social responsibility. A. Le Coq has established a strategic partnership with Estonian Football Association therefore Estonia’s main football stadium and its highest football division are named after the company. Also, for a short period, A. Le Coq supported a basketball team from Estonian professional league - TTÜ/A. Le Coq, from 2002 until the dissolution of the club in 2004. In Tartu, several sports centers collaborate with A. Le Coq such as A. Le Coq Sports Hall, Aura Centre – biggest waterpark in southern Estonia.

Therefore, the reason behind the selection of A. Le Coq is the company’s long-term existence with more than two centuries, its strong reputation of being the most innovative beer manufacturer, and being the market leader in Estonia. However, in this paper, the author concentrates solely on the brewery side of A. Le Coq and findings do not bear relevance to the corporate brand of A. Le Coq and other individual brands of A. Le Coq for a different type of products.

Scale development

The author assessed these 9 constructs with the help of 7-point multi-item Likert-type scales to examine the presented hypotheses and conceptual model. These multi-item scales were adopted from various sources and tailored to this research. Even though the study uses established scales taken from research in a higher education context by Dennis et al. (2016), they fit properly into this research since they were not developed specifically for certain industry contexts, except scales for Brand Identity by Goi et al. (2014) which also shows compatibility. Table 1 demonstrates the measurement scales and their sources as well as constructs and items utilized for the evaluation of brand equity of A. Le Coq beer. For the sake of clarity, the author dwells on these 9 multi-item scales that mentioned in the conceptual model and give a brief explanation on each of them:

Reputation: in order to assess A. Le Coq beer's reputation, the two-item scale (Chaudhuri, 2002) is accommodated where it reveals customer's attitude toward brand.

Brand image: four-item scale (Syed Alwi & Da Silva, 2007) refers to customer's perception of the brand of A. Le Coq beer and measure the brand image of the brand.

Brand meaning: the four-item scale is sourced from Escalas & Bettman (2005), measures the brand meaning by linking tangible and intangible brand associations.

Brand identity: the four-item brand identity scale (Goi et al., 2014) describes how well customers distinguish the brand of A. Le Coq beer from its competitors.

Attachment strength: the five-item scale (Park et al., 2010) measures the how strongly customers attach to A. Le Coq beer and can give us a hint about intensity of this brand-customer relation.

Commitment: the four-item commitment scale (Jillapalli & Jillapalli, 2014) determines the importance of the relationship to customer with the brand of A. Le Coq beer and dedication in order to preserve it.

Trust: the four-item scale (Jillapalli & Jillapalli, 2014) shows how confident the customers are about their relationship with the brand of A. Le Coq beer and measures the trust toward the brand.

Satisfaction: the three-item satisfaction scale (Jillapalli & Jillapalli, 2014) refers to customer's response to how well A. Le Coq beer does in order to meet the customer expectations.

Brand equity: the final three-item scale (Yoo et al., 2000) measures whether the customers respond positively to the marketing activities of A. Le Coq beer and portrays the brand associations about A. Le Coq beer that customers keep in their minds.

Table 1: Measurement scales, constructs and items.

| Constructs and sources | Items/variables |
|---|--|
| Reputation Chaudhuri (2002) | X7: A. Le Coq beer has a good status X8: A. Le Coq beer has a good reputation |
| Brand Image Syed Alwi & Da Silva (2007) | X9: The brand image of A. Le Coq beer is reassuring X10: The brand image of A. Le Coq beer is straightforward X11: The brand image of A. Le Coq beer is open X12: The brand image of A. Le Coq beer is supportive |
| Brand Meaning Escalas & Bettman (2005) | X13: A. Le Coq beer reflects who I am X14: I feel a personal connection to A. Le Coq beer X15: I consume A. Le Coq beer to communicate who I am to other people X16: I think A. Le Coq beer helps me become the type of person I want to be |
| Brand Identity Goi et al. (2014) | X17: A. Le Coq has a helpful website X18: A. Le Coq has an outstanding mission and vision X19: This is visible brand name with personality X20: The members of the staff are well trained in their roles |
| Attachment strength Park et al. (2010) | X21: A. Le Coq beer is part of me and who I am X22: I feel personally connected to A. Le Coq beer X23: I feel emotionally bonded to A. Le Coq beer X24: A. Le Coq beer is part of me X25: A. Le Coq beer says something to other people about how I am |
| Commitment Jillapalli & Jillapalli (2014) | X26: I am very committed to A. Le Coq beer X27: A. Le Coq beer is very important to me X28: I really care about A. Le Coq beer X39: I believe that A. Le Coq beer deserves my effort in maintaining a relationship |
| Trust Jillapalli & Jillapalli (2014) | X30: A. Le Coq beer can be trusted X31: A. Le Coq beer is expected to do what is right X32: A. Le Coq has high integrity X33: A. Le Coq beer keeps its promises |
| Satisfaction Jillapalli & Jillapalli (2014) | X34: I am delighted with A. Le Coq beer as it satisfies my thirst X35: Overall, I am satisfied with consuming A. Le Coq beer X36: I think I did the right thing when I decided to consume A. Le Coq beer |
| Brand Equity Yoo et al. (2000) | X37: Even if another beer had the same features as this one, I would prefer to purchase A. Le Coq beer X38: If there was another beer as good as this one, I would still prefer to purchase A. Le Coq beer X39: If another beer was similar to A. Le Coq beer in any way, it would still seem smarter to purchase A-le Coq beer. |

Source: Adapted from Dennis et al. (2016, p. 3053)

Sample selection and fieldwork

In order to collect the empirical data for this research the author conducted self-administered structured online and offline surveys among consumers of A. Le Coq beer in Estonia. The study uses a convenient sample from the bachelor, master, and PhD students as well as graduates from the University of Tartu who are the consumers of A. Le Coq beer. Google's online survey administration service – Google Forms was used for online response gathering process, since it has several benefits: responses can be exported to Google sheets where you can download as .xlsx file for future usage; survey can be reached and modified easily in case of need; self-made summary mode for better view and so on.

Online survey was sent out to both students and graduates who were living in Estonia and received 100 valid responses. Also, offline survey was conducted among students at the time in Tartu and obtained 20 valid answers. For both of these surveys, live assistance was provided to attendees in case of need, in order to make sure that every question is well understood. The gender breakdown of the respondents is almost equal which represent the general population very well. Even though it is believed that student samples can't represent the general population and there is a question mark over the validity of these samples, yet student samples can be used for some situations where they actually are recognized as major consumers of the chosen product (Atilgan et al., 2005; Yoo. et al., 2000). Several studies (Karam et al., 2007; Stock et al., 2009) discussed the alcohol consumption habits among students and a high level of alcohol consumption observed. A survey amongst university students in the USA about their alcohol consumption concludes that 70% of the respondents consumed alcohol during last 30 days (O'Malley & Johnston, 2002) and Kidorf et al. (1995) argue this consumption happened mostly as drinking beer (as cited in Barth, 2013). Additionally, empirical studies on the demographics of beer consumption, show that younger people between 19-34 age range drink more beer per month than older people (Kerr et al., 2004). Considering the fact that, all of the respondents – both Estonians and foreigners are the consumers of A. Le Coq beer and lived or are living in Tartu where A. Le Coq has significant popularity, hence this sample group can be regarded as appropriate.

The survey's instrument consisted of two parts where the respondents answered questions about their socio-demographical and economic status in the first part. The second part was formed of 9 constructs with 33 variables/items/statements related to various aspects and consequences of brand equity of A. Le Coq beer. In the second part, the respondents were asked to state their agreement or disagreement with the questions based on a 7-point Likert scale with 1 being

strongly disagree and 7 strongly agree. based on a 7-point Likert scale with 1 being strongly disagree and 7 strongly agree.

Instead of a simple yes/no type of assessment, the author chose a Likert type scale in order to obtain more sophisticated and certain data since this type of scale helps to measure feelings more precisely. In the end, the author managed to obtain 120 valid responses in total. Table 2 indicates the frequencies and the percentages related to gender, age, location, education level, occupation, and nationality.

Table 2: Sample description

| Variables | | Frequency | Percentage |
|--|---------------|------------|--------------|
| <i>Gender</i> | Male | 62 | 51.7 |
| | Female | 58 | 48.3 |
| | Total | 120 | 100.0 |
| <i>Age</i> | From 18 to 24 | 90 | 75 |
| | 25-34 | 30 | 25 |
| | Total | 120 | 100.0 |
| <i>Location</i> | Tartu | 84 | 70 |
| | Tallinn | 22 | 18.3 |
| | Other | 14 | 11.7 |
| | Total | 120 | 100.0 |
| <i>Education (highest level completed)</i> | PhD | 1 | 0.83 |
| | Masters | 60 | 50 |
| | Bachelor | 53 | 44.1 |
| | Secondary | 5 | 4.24 |
| | Other | 1 | 0.83 |
| | Total | 120 | 100.0 |
| <i>Occupation</i> | Employed | 26 | 21.7 |
| | Non-employed | 94 | 78.3 |
| | Total | 120 | 100.0 |
| <i>Nationality</i> | Estonian | 26 | 21.7 |
| | Foreigners | 94 | 78.3 |
| | Total | 120 | 100.0 |

Data analysis and techniques

In this paper, the author utilizes 3 different methods in order to analyze the data and to get the results of the study. T-test analysis is performed for finding the significant differences between different population groups since there are 6 groups of comparing populations based on their characteristics. Hypotheses testing is done with the help of regression analysis where 12 hypotheses are tested in order to validate the conceptual model. The main reason why the author chooses regression analysis over other techniques, mostly because it is very convenient and practical to apply. For performing t-test and regression analysis, this study utilizes a widely used software package – SPSS. The main reason behind the selection of SPSS is that the author can perform various tasks easily such as to export the online collected data to SPSS; to make visual graphics such as charts, plots; and also, SPSS has a relatively easy usage that plays a big role in the analysis. Since there are several variables that should be handled, to test the hypotheses of the conceptual model, SPSS can save a lot of time for researchers.

This research employed the Partial Least Square (PLS) approach of Structural Equation Modelling (SEM) for testing the badness-of-fit of the model to the data; examining the collinearity issues of the model, as well as evaluating the construct reliability and validity. PLS approach is decided to utilize mainly because it is appropriate for the study since the sample size is relatively small and the precision of the prediction is vital (Wong, 2013). The author chooses SmartPLS 3 for performing Partial Least Square analysis, simply because it is very user-friendly, freely available to scholars and it has sophisticated reporting characteristics (Wong, 2013).

4. Results

Profile of participants²

The analysis of the participants in the survey showed that the majority of them are male (62) compare to female (58). Basically, the participants are young between 18 to 34 years old. The majority of them are in the group between 18-24 (90) compared to 25-34 (30). In addition, most of the participants are coming from Tartu (84) compared to Tallinn (22) and other places (14). The majority of the participants have a master's degree (60) compared to bachelor's degree (53), secondary certificate (5), PhD (1), and other education (1). The majority of the participants were university students (94) compared to employees (26). Finally, there were 26 Estonians and 94 from other countries.

T-test Analysis Results

Independent Samples t-Test was performed to reveal whether there are statistically significant differences between different populations based on tested variables. The t-Test analysis was performed on six different population characteristics which are demonstrated in Table 3, among all 9 constructs including 33 items that belong to the conceptual model. The study reveals in Table 3 which items/variables are statistically significantly different between each of the six different population characteristics i.e., male vs female, 18-24 vs 25-34 years old, Tartu vs Tallinn, PhD vs Master vs Bachelor vs Secondary, employed vs non-employed, and Estonians vs Foreigners.

With the use of SPSS 26, the Independent Samples Test was performed (see Appendix A) and the study revealed the following significant differences:

Regarding gender, there is a significant difference between male vs female regarding two variables X15: I consume A. Le Coq beer to communicate who I am to other people and X37: Even if another beer had the same features as this one, I would prefer to purchase A. Le Coq beer. Females agree with both statements compared to males who disagree with both statements.

Regarding age, there were no significant differences among the variables of the model between the two age groups of 18-24 and 25-34 years old. Therefore, all ages were behaving in the same way.

² Figures in parentheses indicate the number of respondents.

Table 3: T-test analysis of differences between different population segments

| <i>Population characteristics</i> | <i>Item/variable</i> | | <i>Significant differences between different segments</i> |
|-----------------------------------|----------------------|--|---|
| | <i>variables</i> | <i>p-value*</i> | |
| X1, Gender | X15 | .015 | Where 1: male, 2: female |
| | X37 | .037 | |
| X2, Age | - | no statistically significant differences | Where 1: 18-24, 2: 35-34 |
| X3, Location | X7 | .072 | Where 1: Tartu, 2: Tallinn |
| | X8 | .003 | |
| | X10 | .077 | |
| | X12 | .082 | |
| | X33 | .048 | |
| X4, Education | X23 | .087 | Where 1: bachelor, 2: master |
| X5, Occupation | X20 | .084 | Where 1: student, 2: employed |
| | X33 | .035 | |
| | X35 | .038 | |
| X6, Nationality | X16 | .027 | Where 1: Estonian, 2: other |
| | X19 | .016 | |
| | X28 | .055 | |
| | X37 | .084 | |
| | X38 | .080 | |

***Note:** Significant at $p < .10$

Regarding location, there were some significant differences in relation to variables X7, X8, X10, X12, and X33 between participants from Tartu vs Tallinn. Persons from Tartu agree with X7: A. Le Coq beer has a good status, X8: A. Le Coq beer has a good reputation, X12: The brand image of A. Le Coq beer is supportive and X33: A. Le Coq beer keeps its promises, compared to persons from Tallinn who disagree with them. Persons from Tartu disagree with X10: The brand image of A. Le Coq beer is straightforward compared to persons from Tallinn who agree with this.

Regarding education, persons with master's degree agree with the statement X23: To what extent do you feel emotionally bonded to A. Le Coq beer, compared to persons with bachelor's degree who disagree with this statement.

Regarding occupation, students agree with X20: The members of the staff are well trained in their roles compared to employees who disagree with this. Additionally, students disagree with X33: A. Le Coq beer keeps its promises, and with X35: Overall, I am satisfied with consuming A. Le Coq beer, compared to employees who agree with both statements.

Finally, regarding nationality, Estonians agree with three statements i.e. X19: This is visible brand name with personality, X37: Even if another beer had the same features as this one, I would prefer to purchase A. Le Coq beer and X38: If there was another beer as good as this one, I would still prefer to purchase A. Le Coq beer, compared to others who disagree with them. In addition, Estonians disagree with X16: I think A. Le Coq beer helps me become the type of person I want to be and X28: I really care about A. Le Coq beer, compared to others who agree with both statements.

Table 4 below is based on Appendix B. Initially, the study split the data files into different data files i.e. male and female, 18-24 years and 25-34 years, Tartu and Tallinn, Bachelor and Master, Unemployed and Employed and Estonians and Other.

Table 4: Mean values of variables revealed from T-Test for different pairs of groups*

| <i>Population characteristics</i> | <i>Variables revealed from T-Test</i> | <i>Male vs Female</i> | <i>Tartu vs Tallinn</i> | <i>Bachelor vs Master</i> | <i>Unemployed vs Employed</i> | <i>Estonians vs Other</i> |
|-----------------------------------|---------------------------------------|-----------------------|-------------------------|---------------------------|-------------------------------|---------------------------|
| X1, Gender | X15 | 2.98 MD/ 2.22 D | | | | |
| | X37 | 3.44 MD/ 4.09 N | | | | |
| X2, Age | None | | | | | |
| X3, Location | X7 | | 5.19 MA/ 4.41 N | | | |
| | X8 | | 5.44 MA/ 4.46 N | | | |
| | X10 | | 5.08 MA/ 4.5 N | | | |
| | X12 | | 4.69 MA/ 4.09 N | | | |
| | X33 | | 4.46 N/ 3.68 N | | | |
| X4, Education | X23 | . | | 3.32 MD/2.73 MD | | |
| X5, Occupation | X20 | | | | 4.35 N/3.92 N | |
| | X33 | | | | 4.52 MA/3.73 N | |
| | X35 | | | | 4.70 MA/3.89 N | |
| X6, Nationality | X16 | | | | | 3.23 MD/2.23 D |
| | X19 | | | | | 5.0 MA/ 4.12 N |
| | X28 | | | | | 3.35 MD/2.58 MD |
| | X37 | | | | | 4.31 N/3.60 N |
| | X38 | | | | | 4.27 N/3.61 N |

Note*: Based on Appendix B. SD=Strongly Disagree=1, D=Disagree=2, MD=Mildly Disagree=3, N=Neutral=4, MA=Mildly Agree=5, A=Agree=6, SA=Strongly Agree=7.

In addition, the study calculates the means of variables found in T-Test based on Descriptives, and the results were compared between the dual groups in Table 4. Table 4 reveals that for females the mean value of X15 is decreased compared to males and the mean value of X37 is increased compared to males. Also, it shows that there is no statistically significant difference regarding age groups of 18-24 years and 25-34 years. Regarding the location the mean values of X7, X8, X10, X12, and X33 decrease for participants coming from Tallinn compared to Tartu. Additionally, in terms of education the mean value of X23 decreases for participants having a bachelor's degree compared to a master's degree. Furthermore, regarding the occupation of the participants the mean values of X20, X33, and X35 decrease for the employed persons compared to unemployed ones. Finally, in terms of nationality, the mean values of X16, X19, X28, X37, and X38 reduce for other nationalities compared to Estonians.

Regression Analysis Results

The study utilizes statistical software package – SPSS for conducting regression analysis. The regression is performed in this study to identify the relationships between independent and dependent variables and examine whether these relationships are statistically significant or not. The author unveils the impact of the independent variables on Brand Equity of A. Le Coq beer, which is the dependent variable, by employing this sophisticated statistical analysis. Therefore, the research hypotheses are tested with regression analysis, and hence the final verdict is given on them.

Table 5 below displays Model 1, which gives an overview of the relationship between the regression model and the dependent variable. In Model 1, the author analyses the impact of the predictor variable, which is Reputation, on the dependant variable – Brand Image. The strength of this relationship can be estimated by telling how much variation in the dependant variable is being explained by the regression model. As can be seen in Model 1 Summary, the R Square value equals 0.367 which indicates that 36.7% of the variance in Brand Image is explained by the regression model. It can be noticed that Reputation has a positive beta value which means an increase in Reputation causes an increase in Brand Image as well. Reputation can be considered as a significant predictor of Brand Image since its p-value is less than 0.05. Therefore, it can be said that, Reputation contributes positively and significantly to Brand Image of A. Le Coq beer.

Table 5: Regression analysis, Model 1

| Model 1 Summary | | | | |
|-----------------|--------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | 0.611 ^a | 0.373 | 0.367 | 0.78564 |

a. Predictors: (Constant), Reputation

| Coefficients ^a | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|-------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.409 | 0.297 | | 8.121 | 0.000 |
| | Reputation | 0.465 | 0.056 | 0.611 | 8.374 | 0.000 |

a. Dependent Variable: BrandImage

Table 6 and Table 7 below demonstrate the relationship between Reputation and a) Brand Meaning and b) Brand Identity respectively. As can be seen in Table 6, R Square value for

Model 2 is equal to 0.057 which stands for that Model 2 explains 5.7% of the variation in Brand Meaning where it does not meet Falk & Miller's (1992) rule of 0.1. Nevertheless, it can be observed that reputation makes a positive and significant contribution to the model, as its beta value is positive, and the p-value is less than 0.05.

Table 6: Regression analysis, Model 2

| Model 2 Summary | | | | |
|------------------------|--------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 2 | 0.239 ^a | 0.057 | 0.049 | 1.50777 |

a. Predictors: (Constant), Reputation

| Coefficients^a | | | | | | |
|---------------------------------|------------|-----------------------------|------------|---------------------------|-------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 2 | (Constant) | 1.195 | 0.569 | | 2.100 | 0.038 |
| | Reputation | 0.286 | 0.107 | 0.239 | 2.679 | 0.008 |

a. Dependent Variable: BrandMeaning

The relationship between Reputation and Brand Identity is examined in Model 3, which can be seen in Table 7. The model accounts for 20.8% of the variation in Brand Identity since the R Square value is 0.208. At first glance, the impact of Reputation on dependant variable – Brand Identity seems to be positive and significant based on the results of regression analysis as beta value is positive, and the p-value is less than 0.05.

Table 7: Regression analysis, Model 3

| Model 3 Summary | | | | |
|------------------------|--------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 3 | 0.456 ^a | 0.208 | 0.202 | 0.99257 |

a. Predictors: (Constant), Reputation

| Coefficients^a | | | | | | |
|---------------------------------|------------|-----------------------------|------------|---------------------------|-------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 3 | (Constant) | 2.018 | 0.375 | | 5.386 | 0.000 |
| | Reputation | 0.391 | 0.070 | 0.456 | 5.571 | 0.000 |

a. Dependent Variable: BrandIdentity

In Model 4, the author examines the relationships between predictors and dependent variable which is Attachment Strength this time. It can be noticed that 66.6% of the variance in

Attachment Strength is explained by predictors since the R Square value is equal to 0.666 as can be seen in Table 8 below. Brand Meaning is the only predictor that accounts for both positive and statistically significant coefficient in Model 4. On the other hand, Reputation, Brand Image, and Brand Identity can be considered as poor contributors to the model, with their negative and non-significant relationships to Attachment Strength. It therefore should be said that Brand Meaning is the only predictor that contributes positively and significantly to the dependent variable – Attachment Strength.

Table 8: Regression analysis, Model 4

| Model 4 Summary | | | | |
|------------------------|--------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 4 | 0.823 ^a | 0.677 | 0.666 | 0.89154 |

a. Predictors: (Constant), BrandIdentity, Reputation, BrandMeaning, BrandImage

| Coefficients^a | | | | | | |
|---------------------------------|---------------|-----------------------------|------------|---------------------------|--------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 4 | (Constant) | 1.230 | 0.435 | | 2.828 | 0.006 |
| | Reputation | -0.034 | 0.082 | -0.028 | -0.408 | 0.684 |
| | BrandImage | -0.067 | 0.111 | -0.043 | -0.607 | 0.545 |
| | BrandMeaning | 0.848 | 0.064 | 0.850 | 13.342 | 0.000 |
| | BrandIdentity | -0.018 | 0.097 | -0.013 | -0.183 | 0.855 |

a. Dependent Variable: AttachmentStrength

The relationship between Attachment Strength and a) Commitment, b) Trust, and c) Satisfaction is investigated in Model 5, Model 6, and Model 7 respectively, which can be seen in the next three tables.

Model 5 is set up in order to reveal the relationship between the dependent variable – Commitment and predictor variable, Attachment Strength which is shown in Table 9. R Square value accounts for 0.789 that can be interpreted as 78.9% of the variation in Commitment explained by Model 5, which is exceptionally very good. The coefficient of Attachment Strength seems to have a positive value in Model 5 and its p-value is less than 0.05 and thus is statistically significant. In this case, it can be said that Attachment Strength is a significant predictor of Commitment where its contribution is positive and statistically significant.

Table 9: Regression analysis, Model 5

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 5 | 0.888 ^a | 0.789 | 0.787 | 0.73195 |

a. Predictors: (Constant), AttachmentStrength

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------------|-----------------------------|------------|---------------------------|--------|-------|
| | | B | Std. Error | Beta | | |
| 5 | (Constant) | 0.118 | 0.144 | | 0.818 | 0.415 |
| | Attachment Strength | 0.913 | 0.043 | 0.888 | 20.997 | 0.000 |

a. Dependent Variable: Commitment

As can be seen in Table 10 below, the author examines the impact of Attachment Strength on Trust in Model 6. R Square value that measures the strength of this relationship, equals to 0.203 which can be considered acceptable since it is above the threshold of 0.1 level. The standardized coefficient of Attachment Strength has a positive sign and, moreover, its p-value is less than 0.05. The author, therefore, considers this relationship as positive and statistically significant because of the results obtained from the regression analysis.

Table 10: Regression analysis, Model 6

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|--------------------|----------|-------------------|----------------------------|
| 6 | 0.450 ^a | 0.203 | 0.196 | 1.25591 |

a. Predictors: (Constant), AttachmentStrength

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------------|-----------------------------|------------|---------------------------|--------|-------|
| | | B | Std. Error | Beta | | |
| 6 | (Constant) | 3.013 | 0.247 | | 12.209 | 0.000 |
| | Attachment Strength | 0.409 | 0.075 | 0.450 | 5.481 | 0.000 |

a. Dependent Variable: Trust

Table 11 below indicates the magnitude of the impact of Attachment Strength on dependant variable, Satisfaction. The author makes inferences from Model 7 that 27.7% of the variation in Satisfaction can be explained by Attachment Strength since R Square is equal to 0.277. The author comes to this conclusion that Attachment Strength is a significant predictor of Satisfaction with positive value by taking the results into consideration.

Table 11: Regression analysis, Model 7

| Model 7 Summary | | | | |
|------------------------|--------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 7 | 0.526 ^a | 0.277 | 0.271 | 1.39257 |

a. Predictors: (Constant), AttachmentStrength

| Coefficients^a | | | | | | |
|---------------------------------|---------------------|-----------------------------|------------|---------------------------|-------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 7 | (Constant) | 2.669 | 0.274 | | 9.755 | 0.000 |
| | Attachment Strength | 0.556 | 0.083 | 0.526 | 6.720 | 0.000 |

a. Dependent Variable: Satisfaction

As can be seen in Table 12, the R Square value equals 0.574 which indicates that 57.4% of the variance in Brand Equity is explained by the regression model. R, the square root of R Square, is described as the linear correlation between observed and predicted values of the dependent variable. Its value is equal to 0.757 which can be considered good.

Table 12: Regression analysis, Model 8

| Model 8 Summary | | | | |
|------------------------|--------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 8 | 0.757 ^a | 0.574 | 0.543 | 1.09375 |

a. Predictors: (Constant), Satisfaction, BrandImage, AttachmentStrength, BrandIdentity, Reputation, Trust, BrandMeaning, Commitment

| Coefficients^a | | | | | | |
|---------------------------------|--------------------|-----------------------------|------------|---------------------------|--------|-------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 8 | (Constant) | 0.060 | 0.554 | | 0.109 | 0.913 |
| | Reputation | 0.032 | 0.109 | 0.026 | 0.295 | 0.769 |
| | BrandImage | 0.137 | 0.137 | 0.084 | 1.000 | 0.319 |
| | BrandMeaning | -0.004 | 0.133 | -0.004 | -0.033 | 0.973 |
| | BrandIdentity | -0.151 | 0.130 | -0.104 | -1.163 | 0.247 |
| | AttachmentStrength | 0.133 | 0.153 | 0.127 | 0.867 | 0.388 |
| | Commitment | 0.248 | 0.153 | 0.243 | 1.623 | 0.108 |
| | Trust | 0.223 | 0.107 | 0.193 | 2.091 | 0.039 |
| | Satisfaction | 0.348 | 0.098 | 0.351 | 3.549 | 0.001 |

a. Dependent Variable: BrandEquity

It can be noticed that the predictors in the Model 8 mostly hold positive values except Brand Meaning and Brand Identity. The negative coefficient indicates a negative relationship between the predictor and dependant variable – Brand Equity, which means one unit increase in the predictor variable causes a decrease in the dependant variable by the value of the beta coefficient. Since both Brand Meaning and Brand Identity have negative beta value and their p-values are greater than 0.05, it can be stated that these predictors make a negative and insignificant contribution to the model. However, both Trust and Satisfaction have a positive beta value and can be considered as significant predictors of Brand Equity since both of their p-values are less than 0.05, with a score of 0.039 and 0.001 respectively. The rest of the predictors in Model 1, in the meanwhile, seems to have statistically non-significant and positive coefficients which mean they have a relatively poor individual contribution to the model.

In summary, Model 1, Model 2, and Model 3, support that Reputation has significant and positive relationships with Brand Image, Brand Meaning, and Brand Identity. Model 4 supports that Brand Meaning has a significant and positive relationship with Attachment Strength. However, Reputation, Brand Image, and Brand Identity have non-significant and negative relationships with Attachment Strength. Model 5, Model 6, and Model 7 support that Attachment Strength has significant and positive relationships with Commitment, Trust, and Satisfaction. Finally, Model 8 supports that both Trust and Satisfaction explain significantly and positively the dependent variable Brand Equity. In addition, Model 8 supports that Reputation, Brand Image, Attachment Strength, and Commitment have a non-significant and positive impact of Brand Equity. Furthermore, Model 8 shows that Brand Meaning and Brand Identity have a non-significant and negative impact on Brand Equity.

Status of hypotheses

Based on Figure 1 and regression analysis results, the study develops Table 13 which shows which hypotheses are accepted or rejected. Table 13 reveals that nine hypotheses are accepted (H1a, H1b, H1c, H2a, H3a, H3b, H3c, H4a, and H4c) and three hypotheses are rejected (H2b, H2c, and H4b).

Table 13: Test of hypotheses and their status

| Research proposed hypotheses | Standardized Coefficients Beta | Sig | Results |
|--|---------------------------------------|------------|----------------|
| H1a: A. Le Coq's brand reputation is significantly and positively related to the brand image of A. Le Coq beer. | 0.611 | 0.000 | Accepted |
| H1b: A. Le Coq's brand reputation is significantly and positively related to the brand meaning of A. Le Coq beer. | 0.239 | 0.008 | Accepted |
| H1c: A. Le Coq's brand reputation is significantly and positively related to the brand identity of A. Le Coq beer. | 0.456 | 0.000 | Accepted |
| H2a: A. Le Coq's brand meaning is significantly and positively related to a customer's attachment to the brand of A. Le Coq beer. | 0.850 | 0.000 | Accepted |
| H2b: A. Le Coq's brand identity is significantly and positively related to a customer's attachment to the brand of A. Le Coq beer. | -0.013 | 0.855 | Rejected |
| H2c: A. Le Coq's brand image is significantly and positively related to a customer's attachment to the brand of A. Le Coq beer. | -0.043 | 0.545 | Rejected |
| H3a: Customer's attachment to A. Le Coq beer is significantly and positively related to his/her commitment to the brand of A. Le Coq beer. | 0.888 | 0.000 | Accepted |
| H3b: Customer's attachment to A. Le Coq beer is significantly and positively related to his/her trust in the brand of A. Le Coq beer. | 0.450 | 0.000 | Accepted |
| H3c: Customer's attachment to A. Le Coq beer is significantly and positively related to his/her satisfaction in the brand of A. Le Coq beer. | 0.526 | 0.000 | Accepted |
| H4a: Customer's trust to A. Le Coq is significantly and positively related to brand equity of A. Le Coq beer. | 0.193 | 0.039 | Accepted |
| H4b: Customer's commitment to A. Le Coq is significantly and positively related to brand equity of A. Le Coq beer. | 0.243 | 0.108 | Rejected |
| H4c: Customer's satisfaction to A. Le Coq is significantly and positively related to brand equity of A. Le Coq beer. | 0.351 | 0.001 | Accepted |

Source: Table 8; 9; 10; 11.

Partial Least Squares Results

In the following paragraphs the study uses SmartPLS 3 to: a) examine the collinearity statistics, b) test the model fit, c) illustrate the path coefficients, total effects, and outer weights, d) comment on R square and e) evaluate the construct reliability and validity as well as the discriminant validity.

Initially the study runs the collinearity statistics - Variance Inflation Factor (VIF) (Hair et al., 2014, p. 157, p.200) for the sake of assessing the collinearity issues of the model. Performing collinearity statistics is crucial since it tells us whether any variables should be extracted or combined into one in order to avoid multicollinearity problems (Wong, 2013). Table 14 below demonstrates all the variables in the model and their VIF value accordingly.

Table 14: Collinearity statistics (VIF)

| Variables | VIF | Variables | VIF | Variables | VIF |
|------------------|------------|------------------|--------------|------------------|------------|
| X7 | 2.586 | X18 | 2.004 | X29 | 2.613 |
| X8 | 2.586 | X19 | 1.483 | X30 | 2.295 |
| X9 | 1.486 | X20 | 1.799 | X31 | 2.471 |
| X10 | 1.761 | X21 | 3.693 | X32 | 2.405 |
| X11 | 1.605 | X22 | 5.376 | X33 | 2.136 |
| X12 | 1.898 | X23 | 5.398 | X34 | 2.578 |
| X13 | 2.781 | X24 | 4.341 | X35 | 3.980 |
| X14 | 2.446 | X25 | 3.218 | X36 | 3.071 |
| X15 | 2.788 | X26 | 2.454 | X37 | 3.429 |
| X16 | 3.057 | X27 | 3.834 | X38 | 4.431 |
| X17 | 1.525 | X28 | 3.721 | X39 | 3.333 |

The value of VIF needs to be less than 5 for each variable in the model so the multicollinearity can be prevented (Joe F. Hair et al., 2011). Table 14 reveals that two variables i.e. X22 and X23 face the problem of multicollinearity. Therefore, the study extracts these two problematic variables from the PLS model. Figure C-1 (see Appendix C) shows the solution of the model using SmartPLS 3.

Figure C-1 (see Appendix C) shows that there are two different types of numbers in the PLS model based on their location. The numbers in the circle which are R square values indicate

how much variation of the endogenous latent variable is being explained by other latent variables (Wong, 2013). The numbers on the arrows are known as the path coefficients and indicate the direct effect of one construct on another one in the path model.

Table 15 below shows R Square values. According to Chin (1998) the R square values of 0.67, 0.33, and 0.19 in PLS path models are considered substantial, moderate, and weak, respectively. In their study, Falk and Miller (1992) suggested that the variance explained or R square values for endogenous variables should be greater than 0.1. Table 15 shows that the variance explained for each dependent construct. As can be seen, one of the endogenous constructs (Brand Meaning) does not meet Falk and Miller (1992)'s rule of 0.1. The final dependent construct i.e. Brand Equity has an R square value of 0.564, which can be considered good. Other constructs in the model also present acceptable levels of explained variance above the threshold of 0.1 level, with the exception of the latent construct Brand Meaning, in which the value of variance explained is 0.057. Furthermore, the latent construct Attachment Strength has an exceptionally very good R square value of 0.679.

Table 15: R square and R Square Adjusted values

| | R-Square | R-Square Adjusted |
|----------------------------|-----------------|--------------------------|
| Attachment Strength | 0.679 | 0.678 |
| Brand Equity | 0.564 | 0.562 |
| Brand Identity | 0.209 | 0.208 |
| Brand Image | 0.411 | 0.410 |
| Brand Meaning | 0.057 | 0.056 |
| Commitment | 0.790 | 0.790 |
| Satisfaction | 0.278 | 0.277 |
| Trust | 0.206 | 0.205 |

The path coefficients for every relationship between the variables in the PLS model are depicted in Table 16. The path coefficients indicate the strength of the connection between the dependent and explanatory variable. It can be put simply as the response of the dependent variable for per unit change in explanatory variables when holding other variables constant (Bollen, 1989). In Table 16, there are two negative path coefficients in the relationships i.e. Brand Identity to Attachment Strength and Brand Image to Attachment Strength.

Table 16: Path coefficients

| | AS | BE | BID | BIM | BM | C | R | S | T |
|---------------------------------|--------|-------|-------|-------|-------|-------|---|-------|-------|
| Attachment Strength (AS) | | | | | | 0.889 | | 0.527 | 0.453 |
| Brand Equity (BE) | | | | | | | | | |
| Brand Identity (BID) | -0.006 | | | | | | | | |
| Brand Image (BIM) | -0.066 | | | | | | | | |
| Brand Meaning (BM) | 0.850 | | | | | | | | |
| Commitment (C) | | 0.344 | | | | | | | |
| Reputation (R) | | | 0.457 | 0.641 | 0.240 | | | | |
| Satisfaction (S) | | 0.358 | | | | | | | |
| Trust (T) | | 0.171 | | | | | | | |

Based on Table 17, Brand Meaning, unlike other brand characteristics, seems to have a very strong positive effect on Attachment Strength (0.850) and Attachment Strength has also a very strong positive effect on Commitment (0.889). Commitment, Trust, and Satisfaction have a positive effect on Brand Equity, as their total effects are 0.344, 0.171, and 0.358, respectively. Brand Image and Brand Identity have a negative effect on Attachment Strength and Commitment, Trust, Satisfaction, and Brand Equity. Additionally, Table D-1 (see Appendix D) indicates the outer weights of the variables on different constructs.

Table 17: Total effects

| | AS | BE | BID | BIM | BM | C | R | S | T |
|---------------------------------|--------|--------|-------|-------|-------|--------|---|--------|--------|
| Attachment Strength (AS) | | 0.572 | | | | 0.889 | | 0.527 | 0.453 |
| Brand Equity (BE) | | | | | | | | | |
| Brand Identity (BID) | -0.006 | -0.003 | | | | -0.005 | | -0.003 | -0.003 |
| Brand Image (BIM) | -0.066 | -0.038 | | | | -0.059 | | -0.035 | -0.030 |
| Brand Meaning (BM) | 0.850 | 0.486 | | | | 0.755 | | 0.448 | 0.385 |
| Commitment (C) | | 0.344 | | | | | | | |
| Reputation (R) | 0.158 | 0.091 | 0.457 | 0.641 | 0.240 | 0.141 | | 0.083 | 0.072 |
| Satisfaction (S) | | 0.358 | | | | | | | |
| Trust (T) | | 0.171 | | | | | | | |

Furthermore, below in Table 19 the study indicates the model fit which is very good as Standardized Root Mean Square Residual (SRMR) values equal to 0.066, which is below 0.08 (Hair et al., 2014, p. 583-584). SRMR is an absolute measure of goodness-of-fit that helps us to prevent potential model misspecification. SRMR can be described as a standardized difference between observed and expected correlation. SRMR can replace RMSEA and it represents badness of fit.

Table 19: Model fit

| | Saturated model | Estimated model |
|-------------------|------------------------|------------------------|
| SRMR | 0.066 | 0.189 |
| d_ULS | 2.138 | 17.640 |
| d_G | 1.392 | 1.809 |
| Chi-Square | 7624.911 | 9295.390 |
| NFI | 0.740 | 0.683 |

Reliability and Validity

Table 20 below shows the construct reliability and validity. The values of Cronbach's Alpha are above 0.7 between 0.807 and 0.926, which avoids the problem of unidimensionality (Tenenhaus et al., 2005). Based on Fornell & Larcker (1981), it is acceptable for the Composite Reliability to be higher than 0.7 and the Average Variance Extracted (AVE) can be higher than 0.5.

Table 20: Construct reliability and validity after deducting X22 and X23

| | Cronbach's Alpha | rho A | Composite Reliability | Average Variance Extracted (AVE)* |
|----------------------------|-------------------------|--------------|------------------------------|--|
| Attachment Strength | 0.912 | 0.912 | 0.944 | 0.850 |
| Brand Equity | 0.926 | 0.926 | 0.953 | 0.871 |
| Brand Identity | 0.807 | 0.827 | 0.872 | 0.632 |
| Brand Image | 0.790 | 0.833 | 0.860 | 0.607 |
| Brand Meaning | 0.894 | 0.894 | 0.926 | 0.758 |
| Commitment | 0.917 | 0.918 | 0.942 | 0.801 |
| Reputation | 0.878 | 0.882 | 0.943 | 0.891 |
| Satisfaction | 0.905 | 0.907 | 0.941 | 0.841 |
| Trust | 0.886 | 0.891 | 0.921 | 0.744 |

Note:* The composite reliability and average variance extracted were same before and after deducting X22 and X23 from the model.

In this study Composite Reliability was between 0.860 and 0.953 and AVE was between 0.607 and 0.891, in which both statistics were above minimum thresholds by Fornell & Larcker (1981) i.e. 0.7 and 0.5 respectively. Since Composite Reliability gets values more than 0.86, this suggests very good reliability. High latent construct reliability indicates that there is an internal consistency, which means that all the measures are consistently representing something.

Finally, Table 21 below, compares the square root of the AVE (diagonal values) with the correlations among the reflective constructs. All constructs were more strongly correlated with their own measures than with any other of the constructs, suggesting good convergent and discriminant validity. In fact, the square root of AVEs is higher than correlations horizontally and vertically.

Table 21: Discriminant validity*

| | AS | BE | BID | BIM | BM | C | R | S | T |
|----------------------------|-----------|-----------|------------|------------|-----------|----------|----------|----------|----------|
| Attachment Strength | 0.922 | | | | | | | | |
| Brand Equity | 0.593 | 0.933 | | | | | | | |
| Brand Identity | 0.425 | 0.410 | 0.795 | | | | | | |
| Brand Image | 0.248 | 0.365 | 0.494 | 0.779 | | | | | |
| Brand Meaning | 0.822 | 0.576 | 0.546 | 0.373 | 0.871 | | | | |
| Commitment | 0.889 | 0.641 | 0.427 | 0.263 | 0.817 | 0.895 | | | |
| Reputation | 0.144 | 0.353 | 0.457 | 0.641 | 0.240 | 0.210 | 0.944 | | |
| Satisfaction | 0.527 | 0.677 | 0.560 | 0.398 | 0.585 | 0.588 | 0.493 | 0.917 | |
| Trust | 0.453 | 0.589 | 0.611 | 0.364 | 0.478 | 0.506 | 0.424 | 0.680 | 0.863 |

Note:* Diagonal values are the square root of AVE's

5. Conclusions

The notion of brand equity has captivated significant attention from scholars in the past two decades and therefore plenty of concepts and models concerned about brand equity are proposed. However, the number of researches that analyse the impact of brand equity components on overall brand equity based on empirical data is scarce. This paper empirically examined brand equity components of A. Le Coq beer in order to contribute to this poorly examined area. Referring to the theoretical underpinnings of the study, the author adopted Jillapalli and Jillapalli (2014)'s customer-based brand equity model which is based on Keller (1993, 2001)'s brand resonance model and also employed Dennis et al., (2016)'s empirical research. The focus of this study was concentrated on unveiling the comprehension of A. Le Coq beer in the minds of customers. In this section, there is a summary of the results obtained from multiple analyses and comments on the hypothesized relationships of brand equity of A. Le Coq beer.

This study revealed some significant differences between gender such as male vs female, location i.e., Tartu vs Tallinn, education i.e. participants with bachelor's degree vs master's degree, occupation i.e. university students vs employees and nationality i.e. Estonians vs others. There was no significant difference between participants of different age groups i.e. 18-24 and 25-34 years old.

In the conceptual model, there is the suggestion that A. Le Coq's reputation has a significant and positive impact on brand characteristics (brand image, brand meaning, and brand identity) of A. Le Coq beer, which is validated by the findings. Furthermore, the results of the study display that brand meaning as one of the brand characteristics, causes a sense of attachment whereas the other two brand characteristics – brand image and brand identity do not have an impact on attachment strength. As it is anticipated the attachment strength has an impact on customers to develop commitment, trustful and satisfied relationships with A. Le Coq beer. One of the major findings is that two of the relationship factors – trust and satisfaction play a significant role in the development of brand equity of A. Le Coq beer. Trusting and satisfying relationships shape the customer's perception of brand equity of A. Le Coq beer and strengthen the overall brand equity. There is, however, a non-significant relationship between commitment and brand equity.

The goodness of fit of the PLS model reveals that generally the model fits very well to the data and based on calculations the model has very good reliability and validity. In addition, the

important relationships of the model that CEOs of brands should pay attention to them are specifically six relationships in terms of importance based on their path coefficients: Attachment Strength to Commitment, Brand Meaning to Attachment Strength, Reputation to Brand Image, Attachment Strength to Satisfaction, Reputation to Brand Identity and Attachment Strength to Trust.

Results indicate that the conceptual model of Brand Equity of A. Le Coq beer is valid and mostly in line with the findings of Dennis et al. (2016) and parallel to the customer-based brand equity model of Jillapalli and Jillapalli (2014). The results are congruent with those of Dennis et al. (2016) who concluded that Reputation has a positive and significant impact on brand characteristics but the non-significant impact on Attachment Strength. Additionally, the relationship between brand characteristics and Attachment Strength in this study shows consistency with Dennis et al. (2016)'s findings. On the other hand, Dennis et al. (2016) discovered a negative relationship between Attachment Strength and Satisfaction, however, this study unveils the relationship between each other to be positive and statistically significant. Meanwhile, Jillapalli and Jillapalli (2014) indicated that the impact of Attachment Strength on Trust is non-significant which is opposed to both Dennis et al. (2016)'s and this study's findings. Finally, Jillapalli and Jillapalli (2014) found relationship factors to have a positive and significant impact on Brand Equity whereas this study indicates that Commitment has a non-significant impact on Brand Equity which does parallel the findings of Dennis et al. (2016).

Aaker (1991) emphasizes the role of cultivating brand equity in developing a strong brand in order to differentiate a product from its competitors and gain a competitive advantage in the marketplace. Strong brand equity can be achieved in the long term through rigorous marketing efforts and thus leads to competitive barriers against competitors (Yoo et al., 2000). Breweries in Estonia, therefore, should put more emphasis on cultivating and managing Brand Equity, since it plays a significant role in emerging of strong brands.

Theoretical and managerial implications

Theoretical implications

In terms of the theoretical implications, this study shows the importance of the trust relationship with brand equity. In addition, the impact of the satisfying relationship on brand equity should be emphasized since it was significant. However, the commitment relationship to brand equity was less important. Another theoretical implication relates to brand characteristics, as two of them – brand identity and brand image have a negative and insignificant impact on attachment

strength. These theoretical implications can provide an opportunity for future research and also can give valuable insights to the breweries and lead to several managerial implications.

Managerial implications

Since the PLS model proved to be a significant one, managers of competitive Estonian breweries can think ways to advertise their beer by paying more attention to develop trust with consumers and to provide more satisfaction to consumers. Satisfied and trusted relationship between customers and brand can cause to brand loyalty, thus (Atilgan et al., 2005; Porral et al., 2013) leads to several benefits for a company, such as increased market share, loyal customers and stronger brand equity. In addition, managers should focus on how to extend brand meaning which has impacts on attachment strength. Breweries can enhance their brand meaning by improving both performance-related functional attributes and extrinsic attributes (Escalas & Bettman, 2005) Another important issue is that managers of competitive brands should promote further their reputation whether this is about their firm or their brands. By promoting the reputation, companies can distinguish their brands from competitors and attract more customers (Kuhn et al., 2008).

Limitations and further research

This research contributes to the poorly examined area of brand equity and is useful for the comprehension of brand equity of A. Le Coq beer, even though there are several limitations regarding this research. The sample size could be considered as one of the limitations since the conceptual model was tested with the sample size of 120 people.

Based on the characteristics of the profile of the participants discussed earlier the sample was based on young consumers 18 to 34 years old, located in Tartu and Tallinn, the majority of participants were from foreign countries (94) compared to Estonians (24) and most of the participants were university students (94) compared to employees (26). All these characteristics limit the generalizability of the study. Therefore, a future survey should be based on a stratified sample to include older participants 35 to 65 years old, a higher percentage of employees, a more representative sample of Estonians vs foreigners, and a more geographically representative sample based on the population of counties of Estonia. More reliable and comprehensive results can be achieved by simply employing a bigger and more diverse sample size.

Future research should focus on the rejected hypotheses. For example, why brand image and brand identity have no significant and positive impact on attachment strength and why

commitment does not impact significantly and positively on brand equity. Research should be done in other countries to find whether different cultures can influence the structure of the suggested model.

Another limitation is related to the cross-sectional nature of this research, where causal relationships can be derived. This limitation can provide an opportunity for future research that a longitudinal study would benefit the in-depth understanding of the dynamic nature of brand-building activities. And lastly, a comparative study that involves another major beer brand in Estonia may unveil different aspects of brand equity formation in the brewery market.

References

- A. *Le Coq*. (n.d.). Retrieved April 19, 2020, from <https://www.alecoq.ee/en/>
- Aaker, D. A. (1991). *Managing Brand Equity*. Free Press.
- Aaker, D. A. (1996). Measuring Brand Equity Across Products and Markets. *California Management Review*, 38(3), 102–120. <https://doi.org/10.2307/41165845>
- Aaker, D. A. (2009). *Managing Brand Equity*. Simon and Schuster.
- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53–66.
- Anderson, J. C., & Narus, J. A. (1990). A Model of Distributor Firm and Manufacturer Firm Working Partnerships. *Journal of Marketing*, 54(1), 42–58. JSTOR. <https://doi.org/10.2307/1252172>
- Atilgan, E., Aksoy, Ş., & Akinci, S. (2005). Determinants of the brand equity: A verification approach in the beverage industry in Turkey. *Marketing Intelligence & Planning*, 23(3), 237–248. <https://doi.org/10.1108/02634500510597283>
- Balmer, J. M. T. (1995). Corporate Branding and Connoisseurship. *Journal of General Management*, 21(1), 24–46. <https://doi.org/10.1177/030630709502100102>
- Balmer, J. M. T., & Gray, E. R. (2003). Corporate brands: What are they? What of them? *European Journal of Marketing*, 37(7/8), 972–997. <https://doi.org/10.1108/03090560310477627>
- Barth, R. (2013). The Chemistry of Beer. In K. Symcox (Ed.), *Using Food To Stimulate Interest in the Chemistry Classroom* (Vol. 1130, pp. 37–47). American Chemical Society. <https://doi.org/10.1021/bk-2013-1130.ch004>
- Berry, L. L. (2000). Cultivating Service Brand Equity. *Journal of the Academy of Marketing Science*, 28(1), 128–137. <https://doi.org/10.1177/0092070300281012>

- Bhattacharya, C. B., & Elsbach, K. D. (2002). Us versus Them: The Roles of Organizational Identification and Disidentification in Social Marketing Initiatives. *Journal of Public Policy & Marketing*, 21(1), 26–36. <https://doi.org/10.1509/jppm.21.1.26.17608>
- Bollen, K. A. (1989). *Structural Equations with Latent Variables* John Wiley New York.
- Bosch, J., Venter, E., Han, Y., & Boshoff, C. (2006). The impact of brand identity on the perceived brand image of a merged higher education institution: Part one. *Management Dynamics : Journal of the Southern African Institute for Management Scientists*, 15(2), 10–30.
- Brand | Common Language Marketing Dictionary*. (n.d.). Retrieved May 13, 2020, from <https://marketing-dictionary.org/b/brand/>
- Burmann, C., Hegner, S., & Riley, N. (2009). Towards an identity-based branding. *Marketing Theory*, 9(1), 113–118. <https://doi.org/10.1177/1470593108100065>
- Chaudhuri, A. (1995). Brand equity or double jeopardy? *Journal of Product & Brand Management*, 4(1), 26–32. <https://doi.org/10.1108/10610429510083730>
- Chaudhuri, A. (2002). How Brand Reputation Affects the Advertising-Brand Equity Link. *Journal of Advertising Research*, 42(3), 33–43. <https://doi.org/10.2501/JAR-42-3-33-43>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295–336.
- Da Silveira, C., Lages, C., & Simões, C. (2013). Reconceptualizing brand identity in a dynamic environment. *Journal of Business Research*, 66(1), 28–36.
- Dawes, J. (2008). Regularities in buyer behaviour and brand performance: The case of Australian beer. *Journal of Brand Management*, 15(3), 198–208. <https://doi.org/10.1057/palgrave.bm.2550099>

- Dennis, C., Papagiannidis, S., Alamanos, E., & Bourlakis, M. (2016). The role of brand attachment strength in higher education. *Journal of Business Research*, 69(8), 3049–3057. <https://doi.org/10.1016/j.jbusres.2016.01.020>
- Ehrenberg, A. S. C., Goodhardt, G. J., & Barwise, T. P. (1990). Double Jeopardy Revisited. *Journal of Marketing*, 54(3), 82. <https://doi.org/10.2307/1251818>
- Erikson, E. H. (1994). *Identity and the Life Cycle* (Revised ed. edition). W. W. Norton & Company.
- Escalas, J. E., & Bettman, J. R. (2005). Self-Construal, Reference Groups, and Brand Meaning. *Journal of Consumer Research*, 32(3), 378–389. <https://doi.org/10.1086/497549>
- Estonia: Beer Market – Market Analysis, Size, Trends, Consumption, Insights, Opportunities, Challenges and Forecast until 2024*. (n.d.). Retrieved May 9, 2020, from <https://www.marketresearch.com/Williams-Marshall-Strategy-v4196/Estonia-Beer-Size-Trends-Consumption-12819350/>
- Fader, P. S., & Schmittlein, D. C. (1993). Excess Behavioral Loyalty for High-Share Brands: Deviations from the Dirichlet Model for Repeat Purchasing. *JOURNAL OF MARKETING RESEARCH*, 16.
- Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. University of Akron Press.
- Fischer, M., Völckner, F., & Sattler, H. (2010). How Important Are Brands? A Cross-Category, Cross-Country Study. *Journal of Marketing Research*, 47(5), 823–839. <https://doi.org/10.1509/jmkr.47.5.823>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.

- Fournier, S., Dobscha, S., & Mick, D. G. (1998, January 1). Preventing the Premature Death of Relationship Marketing. *Harvard Business Review*, *January–February 1998*.
<https://hbr.org/1998/01/preventing-the-premature-death-of-relationship-marketing>
- Ghodeswar, B. M. (2008). Building brand identity in competitive markets: A conceptual model. *Journal of Product & Brand Management*.
- Goi, M. T., Goi, C. L., & Wong, D. (2014). Constructing a brand identity scale for higher education institutions. *Journal of Marketing for Higher Education*, *24*(1), 59–74.
<https://doi.org/10.1080/08841241.2014.906017>
- Grubb, E. L., & Grathwohl, H. L. (1967). Consumer Self-Concept, Symbolism and Market Behavior: A Theoretical Approach. *Journal of Marketing*, *31*(4), 22–27.
<https://doi.org/10.1177/002224296703100405>
- Hair, Joe F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, *19*(2), 139–152.
- Hair, Joseph F, Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis*.
- Hatch, M. J., & Schultz, M. (2001, February 1). Are the Strategic Stars Aligned for Your Corporate Brand? *Harvard Business Review*, *February 2001*.
<https://hbr.org/2001/02/are-the-strategic-stars-aligned-for-your-corporate-brand>
- Hennig-Thurau, T., Gwinner, K. P., & Gremler, D. D. (2002). Understanding relationship marketing outcomes: An integration of relational benefits and relationship quality. *Journal of Service Research*, *4*(3), 230–247.
- Herbig, P., & Milewicz, J. (1995). The relationship of reputation and credibility to brand success. *Journal of Consumer Marketing*, *12*(4), 5+. Gale Academic OneFile.
- Hwang, P. (2006). Asset specificity and the fear of exploitation. *Journal of Economic Behavior & Organization*, *60*(3), 423–438.

- Hwang, P., & Burgers, W. P. (1997). Properties of trust: An analytical view. *Organizational Behavior and Human Decision Processes*, 69(1), 67–73.
- Ind, N. (1997). The Corporate Brand. In N. Ind (Ed.), *The Corporate Brand* (pp. 1–13). Palgrave Macmillan UK. https://doi.org/10.1057/9780230375888_1
- Jillapalli, R. K., & Jillapalli, R. (2014). Do professors have customer-based brand equity? *Journal of Marketing for Higher Education*, 24(1), 22–40. <https://doi.org/10.1080/08841241.2014.909556>
- Kapferer, J.-N. (2008). *The new strategic brand management: Creating and sustaining brand equity long term*. Kogan Page Publishers.
- Karam, E., Kypri, K., & Salamoun, M. (2007). Alcohol use among college students: An international perspective: *Current Opinion in Psychiatry*, 20(3), 213–221. <https://doi.org/10.1097/YCO.0b013e3280fa836c>
- Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1. <https://doi.org/10.2307/1252054>
- Keller, K. L. (2001). *Building customer-based brand equity: A blueprint for creating strong brands*. Marketing Science Institute Cambridge, MA.
- Keller, K. L. (2003). Brand Synthesis: The Multidimensionality of Brand Knowledge. *Journal of Consumer Research*, 29(4), 595–600. <https://doi.org/10.1086/346254>
- Keller, K. L. (2012). *Strategic Brand Management: Building, Measuring, and Managing Brand Equity, 4th Edition* (4th edition). Pearson.
- Kerr, W. C., Greenfield, T. K., Bond, J., Ye, Y., & Rehm, J. (2004). Age, period and cohort influences on beer, wine and spirits consumption trends in the US National Alcohol Surveys. *Addiction*, 99(9), 1111–1120. <https://doi.org/10.1111/j.1360-0443.2004.00820.x>

- Kidorf, M., Sherman, M. F., Johnson, J. G., & Bigelow, G. E. (1995). Alcohol expectancies and changes in beer consumption of first-year college students. *Addictive Behaviors*, 20(2), 225–231. [https://doi.org/10.1016/0306-4603\(94\)00067-0](https://doi.org/10.1016/0306-4603(94)00067-0)
- Kotler, P., & Fox, K. F. (1995). *Strategic marketing for educational institutions*. Prentice Hall.
- Kotler, P., & Keller, K. L. (2012). *Marketing Management: Philip Kotler, Kevin Lane Keller*. Pearson.
- Kuhn, K. L., Alpert, F., & Pope, N. K. Ll. (2008). An application of Keller's brand equity model in a B2B context. *Qualitative Market Research: An International Journal*, 11(1), 40–58. <https://doi.org/10.1108/13522750810845540>
- Larimo, J., Kuusik, A., & Varblane, U. (2013). The Estonian beer market: The battle for market leadership. In J. Gammelgaard & C. Dörrenbächer, *The Global Brewery Industry* (pp. 133–165). Edward Elgar Publishing. <https://doi.org/10.4337/9781781006351.00015>
- Leading Brands of Estonia*. (n.d.). Issuu. Retrieved March 16, 2020, from https://issuu.com/kaubanduskoda/docs/leading_brands_of_estonia_2008
- Levy, S. J. (1959). Symbols for sale. *Harvard Business Review*.
- Maru File, K., Cermak, D. S. P., & Alan Prince, R. (1994). Word-of-Mouth Effects in Professional Services Buyer Behaviour. *The Service Industries Journal*, 14(3), 301–314. <https://doi.org/10.1080/02642069400000035>
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An Integrative Model of Organizational Trust. *The Academy of Management Review*, 20(3), 709–734. JSTOR. <https://doi.org/10.2307/258792>
- Mitchell, A. (1992). Branding: The secret is to be bigger than big. *Marketing*, 16, 18–26.

- Mongkol, K. (2014). Integrated Marketing Communication to Increase Brand Equity: The Case of a Thai Beverage Company. *International Journal of Trade, Economics and Finance*, 5(5), 445–448. <https://doi.org/10.7763/IJTEF.2014.V5.413>
- Morgan, R. M., & Hunt, S. D. (1994). The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58(3), 20–38. JSTOR. <https://doi.org/10.2307/1252308>
- O'Malley, P. M., & Johnston, L. D. (2002). Epidemiology of alcohol and other drug use among American college students. *Journal of Studies on Alcohol, Supplement, s14*, 23–39. <https://doi.org/10.15288/jsas.2002.s14.23>
- Park, C. W., Macinnis, D. J., Priester, J., Eisingerich, A. B., & Iacobucci, D. (2010). Brand Attachment and Brand Attitude Strength: Conceptual and Empirical Differentiation of Two Critical Brand Equity Drivers. *Journal of Marketing*, 74(6), 1–17. <https://doi.org/10.1509/jmkg.74.6.1>
- Payne, A., Storbacka, K., Frow, P., & Knox, S. (2009). Co-creating brands: Diagnosing and designing the relationship experience. *Journal of Business Research*, 62(3), 379–389. <https://doi.org/10.1016/j.jbusres.2008.05.013>
- Porral, C. C., Bourgault, N., & Dopico, D. C. (2013). *Brewing the Recipe for Beer Brand Equity*. 16.
- Roper, S., & Fill, C. (2012). *Corporate reputation: Brand and communication, 2012*. Pearson: Harlow, England.
- Sandbacka, J., Nätti, S., & Tähtinen, J. (2013). Branding activities of a micro industrial services company. *Journal of Services Marketing*, 27(2), 166–177. <https://doi.org/10.1108/08876041311309270>
- Stock, C., Mikolajczyk, R., Bloomfield, K., Maxwell, A. E., Ozcebe, H., Petkeviciene, J., Naydenova, V., Marin-Fernandez, B., El-Ansari, W., & Krämer, A. (2009). Alcohol

- consumption and attitudes towards banning alcohol sales on campus among European university students. *Public Health*, 123(2), 122–129.
<https://doi.org/10.1016/j.puhe.2008.12.009>
- Syed Alwi, S. F., & Da Silva, R. V. (2007). Online and Offline Corporate Brand Images: Do They Differ? *Corporate Reputation Review*, 10(4), 217–244.
<https://doi.org/10.1057/palgrave.crr.1550056>
- Tallinn among CNN's top 15 cities for craft beer. Several breweries searching for investment.* (2019, August 7). Invest in Estonia. <https://investinestonia.com/tallinn-among-top-15-cities-for-craft-beer-several-breweries-searching-for-investment/>
- Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159–205.
- The Brewers of Europe Media Centre—Publications—Beer Statistics—2019 and previous years.* (n.d.). Retrieved April 8, 2020, from https://brewersofeurope.org/site/media-centre/index.php?doc_id=982&class_id=31&detail=true
- Thomson, M. (2006). Human brands: Investigating antecedents to consumers' strong attachments to celebrities. *Journal of Marketing*, 70(3), 104–119.
- van Vught, F. (2008). Mission Diversity and Reputation in Higher Education. *Higher Education Policy*, 21(2), 151–174. <https://doi.org/10.1057/hep.2008.5>
- Veloutsou, C., & Moutinho, L. (2009). Brand relationships through brand reputation and brand tribalism. *Journal of Business Research*, 62(3), 314–322.
<https://doi.org/10.1016/j.jbusres.2008.05.010>
- Vinh, T. T. (2017). Measuring Customer Based Brand Equity: A Case of Heineken from the Beer Market in Vietnam. *Asian Social Science*, 13(3), 177.
<https://doi.org/10.5539/ass.v13n3p177>

- Wong, K. K.-K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1–32.
- Yi, Y. (1990). A critical review of consumer satisfaction. *Review of Marketing*, 4(1), 68–123.
- Yoo, B., Donthu, N., & Lee, S. (2000). An Examination of Selected Marketing Mix Elements and Brand Equity. *Journal of the Academy of Marketing Science*, 28(2), 195–211.
<https://doi.org/10.1177/0092070300282002>
- Zahorik, A. J., & Rust, R. T. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing*, 69(2), 193–215.

Appendices

Appendix A

Independent Samples Test for Gender

| | | Levene's Test for Equality of Variances | | | | | t-test for Equality of Means | | 95% Confidence Interval of the Difference | |
|-----|-----------------------------|--|------|--------|---------|---------------------|------------------------------|--------------------------|--|-------|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| X7 | Equal variances assumed | 2,232 | ,138 | -1,254 | 118 | ,212 | -,322 | ,257 | -,831 | ,187 |
| | Equal variances not assumed | | | -1,247 | 111,743 | ,215 | -,322 | ,258 | -,834 | ,190 |
| X8 | Equal variances assumed | ,554 | ,458 | -1,592 | 118 | ,114 | -,386 | ,242 | -,866 | ,094 |
| | Equal variances not assumed | | | -1,591 | 117,113 | ,114 | -,386 | ,243 | -,867 | ,095 |
| X9 | Equal variances assumed | ,042 | ,838 | -,149 | 118 | ,882 | -,037 | ,251 | -,534 | ,460 |
| | Equal variances not assumed | | | -,148 | 114,927 | ,883 | -,037 | ,252 | -,536 | ,461 |
| X10 | Equal variances assumed | ,078 | ,780 | ,005 | 118 | ,996 | ,001 | ,222 | -,438 | ,440 |
| | Equal variances not assumed | | | ,005 | 117,879 | ,996 | ,001 | ,222 | -,438 | ,440 |
| X11 | Equal variances assumed | ,897 | ,345 | 1,435 | 118 | ,154 | ,324 | ,226 | -,123 | ,772 |
| | Equal variances not assumed | | | 1,428 | 112,288 | ,156 | ,324 | ,227 | -,126 | ,774 |
| X12 | Equal variances assumed | 1,915 | ,169 | 1,385 | 118 | ,169 | ,311 | ,224 | -,134 | ,755 |
| | Equal variances not assumed | | | 1,378 | 112,310 | ,171 | ,311 | ,226 | -,136 | ,758 |
| X13 | Equal variances assumed | 1,145 | ,287 | -,453 | 118 | ,651 | -,142 | ,313 | -,762 | ,478 |
| | Equal variances not assumed | | | -,451 | 112,354 | ,653 | -,142 | ,315 | -,765 | ,482 |
| X14 | Equal variances assumed | 1,238 | ,268 | ,288 | 118 | ,774 | ,100 | ,346 | -,586 | ,785 |
| | Equal variances not assumed | | | ,286 | 113,258 | ,775 | ,100 | ,348 | -,589 | ,789 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|---------|------|-------|------|-------|-------|
| X15 | Equal variances assumed | ,804 | ,372 | 2,468 | 118 | ,015 | ,760 | ,308 | ,150 | 1,369 |
| | Equal variances not assumed | | | 2,472 | 117,949 | ,015 | ,760 | ,307 | ,151 | 1,368 |
| X16 | Equal variances assumed | ,877 | ,351 | 1,030 | 118 | ,305 | ,337 | ,327 | -,311 | ,985 |
| | Equal variances not assumed | | | 1,032 | 117,898 | ,304 | ,337 | ,327 | -,310 | ,984 |
| X17 | Equal variances assumed | 1,053 | ,307 | -,279 | 118 | ,780 | -,072 | ,257 | -,580 | ,437 |
| | Equal variances not assumed | | | -,281 | 117,123 | ,779 | -,072 | ,255 | -,578 | ,434 |
| X18 | Equal variances assumed | ,192 | ,662 | ,449 | 118 | ,654 | ,115 | ,255 | -,390 | ,620 |
| | Equal variances not assumed | | | ,449 | 116,681 | ,655 | ,115 | ,255 | -,391 | ,620 |
| X19 | Equal variances assumed | 1,984 | ,162 | ,919 | 118 | ,360 | ,263 | ,286 | -,304 | ,830 |
| | Equal variances not assumed | | | ,923 | 117,641 | ,358 | ,263 | ,285 | -,301 | ,827 |
| X20 | Equal variances assumed | ,152 | ,697 | ,737 | 118 | ,463 | ,166 | ,226 | -,281 | ,613 |
| | Equal variances not assumed | | | ,735 | 116,175 | ,464 | ,166 | ,226 | -,282 | ,614 |
| X21 | Equal variances assumed | ,835 | ,363 | 1,443 | 118 | ,152 | ,420 | ,291 | -,156 | ,996 |
| | Equal variances not assumed | | | 1,448 | 117,835 | ,150 | ,420 | ,290 | -,154 | ,994 |
| X22 | Equal variances assumed | ,001 | ,969 | ,254 | 118 | ,800 | ,078 | ,307 | -,529 | ,685 |
| | Equal variances not assumed | | | ,254 | 117,721 | ,800 | ,078 | ,306 | -,529 | ,685 |
| X23 | Equal variances assumed | ,469 | ,495 | ,314 | 118 | ,754 | ,105 | ,333 | -,554 | ,763 |
| | Equal variances not assumed | | | ,315 | 117,785 | ,754 | ,105 | ,332 | -,554 | ,763 |
| X24 | Equal variances assumed | 1,528 | ,219 | 1,255 | 118 | ,212 | ,391 | ,311 | -,226 | 1,008 |
| | Equal variances not assumed | | | 1,260 | 117,750 | ,210 | ,391 | ,310 | -,223 | 1,005 |
| X25 | Equal variances assumed | 1,382 | ,242 | 1,301 | 118 | ,196 | ,405 | ,311 | -,211 | 1,021 |
| | Equal variances not assumed | | | 1,296 | 114,141 | ,198 | ,405 | ,312 | -,214 | 1,024 |
| X26 | Equal variances assumed | 5,788 | ,018 | 1,654 | 118 | ,101 | ,513 | ,310 | -,101 | 1,127 |
| | Equal variances not assumed | | | 1,667 | 114,629 | ,098 | ,513 | ,308 | -,097 | 1,122 |
| X27 | Equal variances assumed | ,166 | ,685 | ,041 | 118 | ,967 | ,013 | ,324 | -,628 | ,655 |
| | Equal variances not assumed | | | ,041 | 117,742 | ,967 | ,013 | ,324 | -,628 | ,655 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|--------|---------|------|-------|------|--------|-------|
| X28 | Equal variances assumed | ,622 | ,432 | ,104 | 118 | ,917 | ,034 | ,325 | -,609 | ,677 |
| | Equal variances not assumed | | | ,104 | 114,242 | ,917 | ,034 | ,326 | -,612 | ,680 |
| X29 | Equal variances assumed | ,044 | ,834 | ,383 | 118 | ,702 | ,130 | ,338 | -,540 | ,799 |
| | Equal variances not assumed | | | ,383 | 117,120 | ,702 | ,130 | ,338 | -,540 | ,800 |
| X30 | Equal variances assumed | ,185 | ,668 | ,016 | 118 | ,987 | ,005 | ,305 | -,599 | ,609 |
| | Equal variances not assumed | | | ,016 | 118,000 | ,987 | ,005 | ,305 | -,598 | ,608 |
| X31 | Equal variances assumed | ,073 | ,787 | 1,049 | 118 | ,296 | ,329 | ,314 | -,292 | ,951 |
| | Equal variances not assumed | | | 1,047 | 115,649 | ,297 | ,329 | ,315 | -,294 | ,952 |
| X32 | Equal variances assumed | 1,424 | ,235 | -,180 | 118 | ,857 | -,050 | ,278 | -,600 | ,500 |
| | Equal variances not assumed | | | -,180 | 114,143 | ,858 | -,050 | ,279 | -,602 | ,502 |
| X33 | Equal variances assumed | ,007 | ,935 | 1,297 | 118 | ,197 | ,377 | ,291 | -,199 | ,953 |
| | Equal variances not assumed | | | 1,295 | 116,460 | ,198 | ,377 | ,291 | -,200 | ,954 |
| X34 | Equal variances assumed | 1,253 | ,265 | 1,355 | 118 | ,178 | ,427 | ,315 | -,197 | 1,051 |
| | Equal variances not assumed | | | 1,349 | 113,719 | ,180 | ,427 | ,317 | -,200 | 1,054 |
| X35 | Equal variances assumed | 1,234 | ,269 | -,154 | 118 | ,878 | -,052 | ,336 | -,718 | ,614 |
| | Equal variances not assumed | | | -,153 | 113,366 | ,879 | -,052 | ,338 | -,721 | ,618 |
| X36 | Equal variances assumed | ,016 | ,901 | ,254 | 118 | ,800 | ,082 | ,324 | -,559 | ,724 |
| | Equal variances not assumed | | | ,254 | 117,211 | ,800 | ,082 | ,324 | -,560 | ,724 |
| X37 | Equal variances assumed | ,058 | ,810 | -2,112 | 118 | ,037 | -,651 | ,308 | -1,261 | -,040 |
| | Equal variances not assumed | | | -2,105 | 114,906 | ,037 | -,651 | ,309 | -1,263 | -,038 |
| X38 | Equal variances assumed | ,110 | ,741 | -1,241 | 118 | ,217 | -,384 | ,309 | -,996 | ,229 |
| | Equal variances not assumed | | | -1,237 | 115,103 | ,219 | -,384 | ,310 | -,998 | ,231 |
| X39 | Equal variances assumed | ,096 | ,757 | -1,609 | 118 | ,110 | -,524 | ,326 | -1,169 | ,121 |
| | Equal variances not assumed | | | -1,605 | 115,852 | ,111 | -,524 | ,326 | -1,170 | ,123 |

Independent Samples Test for Age

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----|-----------------------------|--|------|------------------------------|--------|-----------------|-----------------|--------------------------|--|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| X7 | Equal variances assumed | ,237 | ,627 | -1,313 | 118 | ,192 | -,389 | ,296 | -,975 | ,198 |
| | Equal variances not assumed | | | -1,364 | 53,242 | ,178 | -,389 | ,285 | -,961 | ,183 |
| X8 | Equal variances assumed | ,169 | ,682 | -,393 | 118 | ,695 | -,111 | ,283 | -,671 | ,449 |
| | Equal variances not assumed | | | -,418 | 55,775 | ,677 | -,111 | ,266 | -,643 | ,421 |
| X9 | Equal variances assumed | ,078 | ,781 | -1,353 | 118 | ,178 | -,389 | ,287 | -,958 | ,180 |
| | Equal variances not assumed | | | -1,347 | 49,323 | ,184 | -,389 | ,289 | -,969 | ,191 |
| X10 | Equal variances assumed | ,609 | ,437 | -,434 | 118 | ,665 | -,111 | ,256 | -,618 | ,395 |
| | Equal variances not assumed | | | -,418 | 46,683 | ,678 | -,111 | ,266 | -,646 | ,424 |
| X11 | Equal variances assumed | 3,222 | ,075 | -,381 | 118 | ,704 | -,100 | ,263 | -,620 | ,420 |
| | Equal variances not assumed | | | -,445 | 68,223 | ,658 | -,100 | ,225 | -,548 | ,348 |
| X12 | Equal variances assumed | ,140 | ,709 | ,298 | 118 | ,766 | ,078 | ,261 | -,439 | ,595 |
| | Equal variances not assumed | | | ,305 | 51,792 | ,762 | ,078 | ,255 | -,434 | ,590 |
| X13 | Equal variances assumed | 2,939 | ,089 | -,956 | 118 | ,341 | -,344 | ,360 | -1,058 | ,369 |
| | Equal variances not assumed | | | -,869 | 42,941 | ,390 | -,344 | ,396 | -1,144 | ,455 |
| X14 | Equal variances assumed | ,266 | ,607 | -,585 | 118 | ,560 | -,233 | ,399 | -1,024 | ,557 |
| | Equal variances not assumed | | | -,585 | 49,763 | ,561 | -,233 | ,399 | -1,035 | ,568 |
| X15 | Equal variances assumed | 2,217 | ,139 | -,061 | 118 | ,951 | -,022 | ,364 | -,744 | ,699 |
| | Equal variances not assumed | | | -,068 | 61,522 | ,946 | -,022 | ,326 | -,675 | ,630 |
| X16 | Equal variances assumed | ,047 | ,829 | -,059 | 118 | ,953 | -,022 | ,379 | -,773 | ,729 |

| | | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|--------|-------|-------|------|-------|--|-------|
| | Equal variances not assumed | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| X17 | Equal variances assumed | ,125 | ,724 | ,262 | 118 | ,793 | ,078 | ,296 | -,509 | | ,665 |
| | Equal variances not assumed | | | ,262 | 49,726 | ,794 | ,078 | ,296 | -,518 | | ,673 |
| X18 | Equal variances assumed | 2,304 | ,132 | -,377 | 118 | ,707 | -,111 | ,294 | -,694 | | ,472 |
| | Equal variances not assumed | | | -,405 | 56,632 | ,687 | -,111 | ,274 | -,661 | | ,438 |
| X19 | Equal variances assumed | ,060 | ,807 | -,503 | 118 | ,616 | -,167 | ,331 | -,822 | | ,489 |
| | Equal variances not assumed | | | -,513 | 51,498 | ,610 | -,167 | ,325 | -,818 | | ,485 |
| X20 | Equal variances assumed | 2,638 | ,107 | -,213 | 118 | ,832 | -,056 | ,261 | -,572 | | ,461 |
| | Equal variances not assumed | | | -,250 | 68,730 | ,804 | -,056 | ,223 | -,500 | | ,388 |
| X21 | Equal variances assumed | ,048 | ,827 | -,295 | 118 | ,768 | -,100 | ,339 | -,771 | | ,571 |
| | Equal variances not assumed | | | -,309 | 54,060 | ,758 | -,100 | ,323 | -,748 | | ,548 |
| X22 | Equal variances assumed | ,900 | ,345 | ,629 | 118 | ,531 | ,222 | ,353 | -,478 | | ,922 |
| | Equal variances not assumed | | | ,691 | 59,398 | ,493 | ,222 | ,322 | -,422 | | ,866 |
| X23 | Equal variances assumed | ,936 | ,335 | ,696 | 118 | ,488 | ,267 | ,383 | -,492 | | 1,026 |
| | Equal variances not assumed | | | ,738 | 55,398 | ,464 | ,267 | ,361 | -,457 | | ,991 |
| X24 | Equal variances assumed | 1,958 | ,164 | -,031 | 118 | ,976 | -,011 | ,362 | -,728 | | ,705 |
| | Equal variances not assumed | | | -,033 | 56,624 | ,974 | -,011 | ,337 | -,687 | | ,664 |
| X25 | Equal variances assumed | 1,990 | ,161 | ,615 | 118 | ,540 | ,222 | ,361 | -,493 | | ,937 |
| | Equal variances not assumed | | | ,676 | 59,403 | ,502 | ,222 | ,329 | -,436 | | ,880 |
| X26 | Equal variances assumed | ,013 | ,911 | ,553 | 118 | ,581 | ,200 | ,362 | -,516 | | ,916 |
| | Equal variances not assumed | | | ,546 | 48,675 | ,588 | ,200 | ,366 | -,536 | | ,936 |
| X27 | Equal variances assumed | ,014 | ,906 | ,000 | 118 | 1,000 | ,000 | ,374 | -,740 | | ,740 |
| | Equal variances not assumed | | | ,000 | 52,638 | 1,000 | ,000 | ,362 | -,727 | | ,727 |
| X28 | Equal variances assumed | ,016 | ,901 | ,386 | 118 | ,700 | ,144 | ,375 | -,597 | | ,886 |
| | Equal variances not assumed | | | ,401 | 53,456 | ,690 | ,144 | ,360 | -,577 | | ,866 |
| X29 | Equal variances assumed | 1,033 | ,311 | -,427 | 118 | ,670 | -,167 | ,390 | -,939 | | ,606 |

| | | | | | | | | | | | | |
|-----|-----------------------------|-------|------|--|--------|--------|------|--|------|------|--------|------|
| | Equal variances not assumed | | | | -405 | 45,693 | ,687 | | -167 | ,411 | -995 | ,661 |
| X30 | Equal variances assumed | ,622 | ,432 | | -600 | 118 | ,549 | | -211 | ,352 | -907 | ,485 |
| | Equal variances not assumed | | | | -568 | 45,566 | ,573 | | -211 | ,371 | -959 | ,537 |
| X31 | Equal variances assumed | ,968 | ,327 | | -489 | 118 | ,626 | | -178 | ,363 | -898 | ,542 |
| | Equal variances not assumed | | | | -512 | 54,068 | ,611 | | -178 | ,347 | -874 | ,518 |
| X32 | Equal variances assumed | 1,418 | ,236 | | -347 | 118 | ,729 | | -111 | ,320 | -745 | ,523 |
| | Equal variances not assumed | | | | -379 | 58,769 | ,706 | | -111 | ,293 | -698 | ,475 |
| X33 | Equal variances assumed | 3,750 | ,055 | | ,197 | 118 | ,844 | | ,067 | ,338 | -603 | ,736 |
| | Equal variances not assumed | | | | ,226 | 64,833 | ,822 | | ,067 | ,296 | -524 | ,657 |
| X34 | Equal variances assumed | 2,025 | ,157 | | -1,097 | 118 | ,275 | | -400 | ,365 | -1,122 | ,322 |
| | Equal variances not assumed | | | | -1,201 | 59,071 | ,234 | | -400 | ,333 | -1,066 | ,266 |
| X35 | Equal variances assumed | ,263 | ,609 | | -833 | 118 | ,407 | | -322 | ,387 | -1,089 | ,444 |
| | Equal variances not assumed | | | | -834 | 49,855 | ,408 | | -322 | ,387 | -1,099 | ,454 |
| X36 | Equal variances assumed | ,348 | ,557 | | -1,438 | 118 | ,153 | | -533 | ,371 | -1,268 | ,201 |
| | Equal variances not assumed | | | | -1,501 | 53,732 | ,139 | | -533 | ,355 | -1,246 | ,179 |
| X37 | Equal variances assumed | ,001 | ,972 | | -1,297 | 118 | ,197 | | -467 | ,360 | -1,179 | ,246 |
| | Equal variances not assumed | | | | -1,286 | 49,016 | ,205 | | -467 | ,363 | -1,196 | ,263 |
| X38 | Equal variances assumed | ,623 | ,432 | | -1,563 | 118 | ,121 | | -556 | ,356 | -1,260 | ,148 |
| | Equal variances not assumed | | | | -1,604 | 52,099 | ,115 | | -556 | ,346 | -1,250 | ,139 |
| X39 | Equal variances assumed | 2,506 | ,116 | | -1,356 | 118 | ,178 | | -511 | ,377 | -1,258 | ,236 |
| | Equal variances not assumed | | | | -1,474 | 58,194 | ,146 | | -511 | ,347 | -1,205 | ,183 |

Independent Samples Test for Location

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----|-----------------------------|--|------|------------------------------|--------|---------------------|-----------------|--------------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2- tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| X7 | Equal variances assumed | 4,983 | ,028 | 2,317 | 104 | ,022 | ,781 | ,337 | ,113 | 1,450 |
| | Equal variances not assumed | | | 1,875 | 26,491 | ,072 | ,781 | ,417 | -,075 | 1,637 |
| X8 | Equal variances assumed | ,205 | ,651 | 3,181 | 104 | ,002 | ,986 | ,310 | ,371 | 1,601 |
| | Equal variances not assumed | | | 3,240 | 33,675 | ,003 | ,986 | ,304 | ,367 | 1,605 |
| X9 | Equal variances assumed | 2,096 | ,151 | 1,418 | 104 | ,159 | ,460 | ,324 | -,183 | 1,103 |
| | Equal variances not assumed | | | 1,199 | 27,476 | ,241 | ,460 | ,384 | -,327 | 1,247 |
| X10 | Equal variances assumed | 1,337 | ,250 | 2,042 | 104 | ,044 | ,583 | ,286 | ,017 | 1,150 |
| | Equal variances not assumed | | | 1,835 | 29,090 | ,077 | ,583 | ,318 | -,067 | 1,233 |
| X11 | Equal variances assumed | ,012 | ,913 | 1,280 | 104 | ,203 | ,373 | ,292 | -,205 | ,952 |
| | Equal variances not assumed | | | 1,278 | 32,780 | ,210 | ,373 | ,292 | -,221 | ,968 |
| X12 | Equal variances assumed | 1,782 | ,185 | 2,086 | 104 | ,039 | ,600 | ,287 | ,030 | 1,170 |
| | Equal variances not assumed | | | 1,744 | 27,216 | ,092 | ,600 | ,344 | -,105 | 1,305 |
| X13 | Equal variances assumed | ,058 | ,809 | -1,085 | 104 | ,280 | -,453 | ,418 | -1,282 | ,375 |
| | Equal variances not assumed | | | -1,112 | 33,937 | ,274 | -,453 | ,408 | -1,283 | ,376 |
| X14 | Equal variances assumed | ,001 | ,976 | -,935 | 104 | ,352 | -,429 | ,458 | -1,337 | ,480 |
| | Equal variances not assumed | | | -,978 | 34,922 | ,335 | -,429 | ,438 | -1,318 | ,461 |
| X15 | Equal variances assumed | 1,800 | ,183 | ,427 | 104 | ,671 | ,179 | ,419 | -,652 | 1,009 |
| | Equal variances not assumed | | | ,481 | 39,393 | ,633 | ,179 | ,371 | -,571 | ,928 |
| X16 | Equal variances assumed | ,240 | ,625 | -,494 | 104 | ,622 | -,218 | ,440 | -1,091 | ,656 |
| | Equal variances not assumed | | | -,505 | 33,868 | ,617 | -,218 | ,431 | -1,093 | ,658 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|--------|--------|------|-------|------|--------|-------|
| X17 | Equal variances assumed | ,137 | ,712 | 1,074 | 104 | ,286 | ,367 | ,342 | -311 | 1,045 |
| | Equal variances not assumed | | | 1,172 | 37,278 | ,249 | ,367 | ,313 | -,267 | 1,001 |
| X18 | Equal variances assumed | 2,112 | ,149 | ,677 | 104 | ,500 | ,228 | ,337 | -,440 | ,897 |
| | Equal variances not assumed | | | ,635 | 30,405 | ,530 | ,228 | ,360 | -,506 | ,963 |
| X19 | Equal variances assumed | ,120 | ,729 | 1,314 | 104 | ,192 | ,505 | ,385 | -,257 | 1,268 |
| | Equal variances not assumed | | | 1,310 | 32,742 | ,199 | ,505 | ,386 | -,280 | 1,290 |
| X20 | Equal variances assumed | ,176 | ,675 | 1,387 | 104 | ,168 | ,412 | ,297 | -,177 | 1,002 |
| | Equal variances not assumed | | | 1,396 | 33,125 | ,172 | ,412 | ,295 | -,189 | 1,013 |
| X21 | Equal variances assumed | ,114 | ,736 | -,031 | 104 | ,976 | -,012 | ,389 | -,784 | ,760 |
| | Equal variances not assumed | | | -,031 | 33,937 | ,975 | -,012 | ,380 | -,785 | ,761 |
| X22 | Equal variances assumed | ,802 | ,373 | ,378 | 104 | ,706 | ,154 | ,406 | -,652 | ,959 |
| | Equal variances not assumed | | | ,429 | 39,642 | ,670 | ,154 | ,359 | -,571 | ,878 |
| X23 | Equal variances assumed | ,421 | ,518 | -,459 | 104 | ,647 | -,198 | ,432 | -1,054 | ,658 |
| | Equal variances not assumed | | | -,470 | 33,955 | ,641 | -,198 | ,421 | -1,054 | ,658 |
| X24 | Equal variances assumed | ,655 | ,420 | -,393 | 104 | ,695 | -,165 | ,419 | -,995 | ,666 |
| | Equal variances not assumed | | | -,410 | 34,866 | ,684 | -,165 | ,401 | -,978 | ,649 |
| X25 | Equal variances assumed | ,500 | ,481 | ,053 | 104 | ,958 | ,022 | ,411 | -,794 | ,838 |
| | Equal variances not assumed | | | ,056 | 35,559 | ,956 | ,022 | ,389 | -,767 | ,810 |
| X26 | Equal variances assumed | ,909 | ,343 | ,430 | 104 | ,668 | ,177 | ,413 | -,642 | ,997 |
| | Equal variances not assumed | | | ,452 | 35,237 | ,654 | ,177 | ,393 | -,620 | ,975 |
| X27 | Equal variances assumed | ,222 | ,639 | -,847 | 104 | ,399 | -,365 | ,431 | -1,219 | ,490 |
| | Equal variances not assumed | | | -,866 | 33,889 | ,392 | -,365 | ,421 | -1,220 | ,491 |
| X28 | Equal variances assumed | ,399 | ,529 | -,955 | 104 | ,342 | -,403 | ,422 | -1,239 | ,433 |
| | Equal variances not assumed | | | -1,002 | 35,118 | ,323 | -,403 | ,402 | -1,218 | ,413 |
| X29 | Equal variances assumed | 1,199 | ,276 | -,041 | 104 | ,968 | -,018 | ,451 | -,914 | ,877 |
| | Equal variances not assumed | | | -,044 | 36,535 | ,965 | -,018 | ,419 | -,868 | ,831 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|--------|------|------|------|------|-------|
| X30 | Equal variances assumed | 1,172 | ,282 | ,040 | 104 | ,968 | ,016 | ,409 | -796 | ,828 |
| | Equal variances not assumed | | | ,044 | 38,251 | ,965 | ,016 | ,369 | -731 | ,763 |
| X31 | Equal variances assumed | ,131 | ,718 | ,791 | 104 | ,431 | ,323 | ,408 | -486 | 1,131 |
| | Equal variances not assumed | | | ,786 | 32,600 | ,437 | ,323 | ,410 | -512 | 1,157 |
| X32 | Equal variances assumed | ,245 | ,622 | 1,069 | 104 | ,287 | ,389 | ,363 | -332 | 1,109 |
| | Equal variances not assumed | | | 1,074 | 33,040 | ,291 | ,389 | ,362 | -348 | 1,125 |
| X33 | Equal variances assumed | ,093 | ,760 | 1,991 | 104 | ,049 | ,771 | ,387 | ,003 | 1,538 |
| | Equal variances not assumed | | | 2,048 | 34,131 | ,048 | ,771 | ,376 | ,006 | 1,535 |
| X34 | Equal variances assumed | 2,120 | ,148 | 1,096 | 104 | ,276 | ,461 | ,421 | -373 | 1,296 |
| | Equal variances not assumed | | | 1,267 | 41,079 | ,212 | ,461 | ,364 | -274 | 1,196 |
| X35 | Equal variances assumed | 1,331 | ,251 | 1,274 | 104 | ,205 | ,571 | ,448 | -318 | 1,461 |
| | Equal variances not assumed | | | 1,356 | 35,830 | ,184 | ,571 | ,421 | -283 | 1,426 |
| X36 | Equal variances assumed | 1,100 | ,297 | ,589 | 104 | ,557 | ,252 | ,428 | -597 | 1,101 |
| | Equal variances not assumed | | | ,650 | 37,908 | ,520 | ,252 | ,388 | -534 | 1,038 |
| X37 | Equal variances assumed | ,512 | ,476 | ,611 | 104 | ,543 | ,252 | ,413 | -566 | 1,071 |
| | Equal variances not assumed | | | ,587 | 31,283 | ,562 | ,252 | ,430 | -624 | 1,128 |
| X38 | Equal variances assumed | ,011 | ,916 | ,314 | 104 | ,754 | ,128 | ,407 | -679 | ,934 |
| | Equal variances not assumed | | | ,318 | 33,337 | ,753 | ,128 | ,402 | -690 | ,946 |
| X39 | Equal variances assumed | ,001 | ,974 | ,382 | 104 | ,703 | ,163 | ,428 | -685 | 1,012 |
| | Equal variances not assumed | | | ,387 | 33,408 | ,701 | ,163 | ,422 | -696 | 1,023 |

Independent Samples Test for Education

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | Mean | Std. Error | 95% Confidence Interval of the Difference | |
|-----|-----------------------------|--|------|------------------------------|---------|-----------------|------------|------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Difference | Difference | Lower | Upper |
| X7 | Equal variances assumed | ,166 | ,684 | -,293 | 111 | ,770 | -,079 | ,269 | -,612 | ,454 |
| | Equal variances not assumed | | | -,294 | 110,115 | ,769 | -,079 | ,268 | -,611 | ,453 |
| X8 | Equal variances assumed | ,001 | ,978 | ,839 | 111 | ,403 | ,211 | ,251 | -,287 | ,708 |
| | Equal variances not assumed | | | ,838 | 108,613 | ,404 | ,211 | ,251 | -,288 | ,709 |
| X9 | Equal variances assumed | ,161 | ,689 | -,363 | 111 | ,717 | -,095 | ,263 | -,616 | ,425 |
| | Equal variances not assumed | | | -,361 | 107,183 | ,719 | -,095 | ,264 | -,618 | ,427 |
| X10 | Equal variances assumed | ,008 | ,927 | ,820 | 111 | ,414 | ,188 | ,229 | -,266 | ,641 |
| | Equal variances not assumed | | | ,818 | 108,043 | ,415 | ,188 | ,229 | -,267 | ,642 |
| X11 | Equal variances assumed | ,159 | ,691 | ,448 | 111 | ,655 | ,106 | ,236 | -,362 | ,574 |
| | Equal variances not assumed | | | ,448 | 109,595 | ,655 | ,106 | ,236 | -,362 | ,573 |
| X12 | Equal variances assumed | ,490 | ,485 | ,228 | 111 | ,820 | ,054 | ,236 | -,413 | ,521 |
| | Equal variances not assumed | | | ,227 | 107,250 | ,821 | ,054 | ,237 | -,415 | ,523 |
| X13 | Equal variances assumed | ,003 | ,954 | ,184 | 111 | ,854 | ,060 | ,327 | -,587 | ,707 |
| | Equal variances not assumed | | | ,184 | 109,149 | ,854 | ,060 | ,327 | -,587 | ,707 |
| X14 | Equal variances assumed | ,751 | ,388 | 1,133 | 111 | ,260 | ,404 | ,357 | -,303 | 1,112 |
| | Equal variances not assumed | | | 1,126 | 105,764 | ,263 | ,404 | ,359 | -,308 | 1,116 |
| X15 | Equal variances assumed | ,642 | ,425 | ,584 | 111 | ,560 | ,192 | ,329 | -,460 | ,845 |
| | Equal variances not assumed | | | ,579 | 104,355 | ,564 | ,192 | ,332 | -,466 | ,851 |
| X16 | Equal variances assumed | ,000 | ,987 | ,447 | 111 | ,656 | ,154 | ,344 | -,528 | ,835 |
| | Equal variances not assumed | | | ,446 | 107,635 | ,657 | ,154 | ,345 | -,530 | ,838 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|---------|------|-------|------|-------|-------|
| X17 | Equal variances assumed | ,173 | ,678 | -,099 | 111 | ,921 | -,026 | ,266 | -,553 | ,501 |
| | Equal variances not assumed | | | -,099 | 107,606 | ,921 | -,026 | ,267 | -,555 | ,502 |
| X18 | Equal variances assumed | ,022 | ,881 | ,877 | 111 | ,383 | ,227 | ,259 | -,286 | ,739 |
| | Equal variances not assumed | | | ,873 | 107,093 | ,385 | ,227 | ,260 | -,288 | ,742 |
| X19 | Equal variances assumed | 1,003 | ,319 | 1,597 | 111 | ,113 | ,462 | ,289 | -,111 | 1,034 |
| | Equal variances not assumed | | | 1,590 | 106,993 | ,115 | ,462 | ,290 | -,114 | 1,037 |
| X20 | Equal variances assumed | 1,098 | ,297 | ,993 | 111 | ,323 | ,230 | ,231 | -,229 | ,688 |
| | Equal variances not assumed | | | ,988 | 106,657 | ,325 | ,230 | ,232 | -,231 | ,690 |
| X21 | Equal variances assumed | ,340 | ,561 | 1,193 | 111 | ,236 | ,360 | ,302 | -,238 | ,957 |
| | Equal variances not assumed | | | 1,182 | 103,728 | ,240 | ,360 | ,304 | -,244 | ,963 |
| X22 | Equal variances assumed | ,014 | ,907 | 1,565 | 111 | ,121 | ,489 | ,312 | -,130 | 1,108 |
| | Equal variances not assumed | | | 1,560 | 107,760 | ,122 | ,489 | ,313 | -,132 | 1,110 |
| X23 | Equal variances assumed | ,087 | ,768 | 1,727 | 111 | ,087 | ,587 | ,340 | -,086 | 1,261 |
| | Equal variances not assumed | | | 1,725 | 108,588 | ,087 | ,587 | ,341 | -,088 | 1,262 |
| X24 | Equal variances assumed | ,310 | ,579 | ,874 | 111 | ,384 | ,282 | ,323 | -,358 | ,922 |
| | Equal variances not assumed | | | ,875 | 109,957 | ,383 | ,282 | ,322 | -,357 | ,921 |
| X25 | Equal variances assumed | ,296 | ,587 | 1,508 | 111 | ,134 | ,483 | ,320 | -,152 | 1,118 |
| | Equal variances not assumed | | | 1,502 | 107,073 | ,136 | ,483 | ,322 | -,154 | 1,121 |
| X26 | Equal variances assumed | ,220 | ,640 | 1,616 | 111 | ,109 | ,520 | ,322 | -,118 | 1,157 |
| | Equal variances not assumed | | | 1,616 | 109,269 | ,109 | ,520 | ,322 | -,118 | 1,157 |
| X27 | Equal variances assumed | ,428 | ,515 | 1,445 | 111 | ,151 | ,482 | ,334 | -,179 | 1,143 |
| | Equal variances not assumed | | | 1,440 | 107,598 | ,153 | ,482 | ,335 | -,181 | 1,146 |
| X28 | Equal variances assumed | ,008 | ,927 | 1,637 | 111 | ,104 | ,547 | ,334 | -,115 | 1,208 |
| | Equal variances not assumed | | | 1,632 | 107,789 | ,105 | ,547 | ,335 | -,117 | 1,210 |
| X29 | Equal variances assumed | ,244 | ,622 | 1,388 | 111 | ,168 | ,484 | ,349 | -,207 | 1,176 |
| | Equal variances not assumed | | | 1,389 | 109,463 | ,168 | ,484 | ,349 | -,207 | 1,175 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|---------|------|-------|------|-------|------|
| X30 | Equal variances assumed | ,253 | ,616 | ,695 | 111 | ,488 | ,211 | ,303 | -,390 | ,811 |
| | Equal variances not assumed | | | ,694 | 108,434 | ,489 | ,211 | ,304 | -,391 | ,812 |
| X31 | Equal variances assumed | 6,929 | ,010 | ,904 | 111 | ,368 | ,287 | ,318 | -,342 | ,917 |
| | Equal variances not assumed | | | ,890 | 97,629 | ,375 | ,287 | ,323 | -,353 | ,928 |
| X32 | Equal variances assumed | 2,608 | ,109 | -,746 | 111 | ,457 | -,211 | ,283 | -,772 | ,350 |
| | Equal variances not assumed | | | -,736 | 98,955 | ,464 | -,211 | ,287 | -,781 | ,359 |
| X33 | Equal variances assumed | 2,756 | ,100 | -,889 | 111 | ,376 | -,267 | ,300 | -,862 | ,328 |
| | Equal variances not assumed | | | -,876 | 98,745 | ,383 | -,267 | ,305 | -,871 | ,337 |
| X34 | Equal variances assumed | 1,520 | ,220 | 1,068 | 111 | ,288 | ,332 | ,311 | -,284 | ,947 |
| | Equal variances not assumed | | | 1,058 | 103,632 | ,292 | ,332 | ,313 | -,290 | ,953 |
| X35 | Equal variances assumed | ,413 | ,522 | ,516 | 111 | ,607 | ,171 | ,332 | -,487 | ,829 |
| | Equal variances not assumed | | | ,515 | 107,728 | ,608 | ,171 | ,333 | -,489 | ,832 |
| X36 | Equal variances assumed | ,731 | ,394 | ,135 | 111 | ,893 | ,044 | ,327 | -,604 | ,692 |
| | Equal variances not assumed | | | ,134 | 106,357 | ,894 | ,044 | ,329 | -,607 | ,696 |
| X37 | Equal variances assumed | ,493 | ,484 | -,076 | 111 | ,940 | -,024 | ,320 | -,658 | ,610 |
| | Equal variances not assumed | | | -,075 | 105,418 | ,940 | -,024 | ,322 | -,663 | ,614 |
| X38 | Equal variances assumed | ,687 | ,409 | -,300 | 111 | ,765 | -,095 | ,318 | -,725 | ,534 |
| | Equal variances not assumed | | | -,298 | 105,615 | ,766 | -,095 | ,320 | -,729 | ,539 |
| X39 | Equal variances assumed | 2,320 | ,131 | -,236 | 111 | ,814 | -,080 | ,338 | -,750 | ,590 |
| | Equal variances not assumed | | | -,234 | 101,800 | ,816 | -,080 | ,342 | -,758 | ,598 |

Independent Samples Test for Occupation

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----|-----------------------------|--|------|------------------------------|--------|-----------------|--------------------|--------------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| X7 | Equal variances assumed | ,537 | ,465 | ,776 | 117 | ,439 | ,248 | ,319 | -,384 | ,879 |
| | Equal variances not assumed | | | ,799 | 39,246 | ,429 | ,248 | ,310 | -,380 | ,875 |
| X8 | Equal variances assumed | 1,416 | ,236 | ,996 | 117 | ,321 | ,300 | ,302 | -,297 | ,898 |
| | Equal variances not assumed | | | 1,074 | 42,055 | ,289 | ,300 | ,280 | -,264 | ,865 |
| X9 | Equal variances assumed | ,122 | ,728 | ,681 | 117 | ,497 | ,211 | ,310 | -,402 | ,824 |
| | Equal variances not assumed | | | ,680 | 37,659 | ,501 | ,211 | ,310 | -,418 | ,840 |
| X10 | Equal variances assumed | 1,202 | ,275 | ,254 | 117 | ,800 | ,069 | ,273 | -,472 | ,611 |
| | Equal variances not assumed | | | ,243 | 35,772 | ,810 | ,069 | ,286 | -,510 | ,649 |
| X11 | Equal variances assumed | ,566 | ,453 | -,454 | 117 | ,650 | -,128 | ,281 | -,684 | ,429 |
| | Equal variances not assumed | | | -,461 | 38,500 | ,648 | -,128 | ,277 | -,688 | ,433 |
| X12 | Equal variances assumed | ,693 | ,407 | ,166 | 117 | ,869 | ,046 | ,280 | -,507 | ,600 |
| | Equal variances not assumed | | | ,150 | 33,605 | ,882 | ,046 | ,309 | -,582 | ,674 |
| X13 | Equal variances assumed | ,711 | ,401 | 1,430 | 117 | ,155 | ,549 | ,384 | -,212 | 1,310 |
| | Equal variances not assumed | | | 1,476 | 39,436 | ,148 | ,549 | ,372 | -,203 | 1,302 |
| X14 | Equal variances assumed | 2,646 | ,107 | 1,325 | 117 | ,188 | ,563 | ,425 | -,279 | 1,404 |
| | Equal variances not assumed | | | 1,505 | 45,900 | ,139 | ,563 | ,374 | -,190 | 1,316 |
| X15 | Equal variances assumed | 12,818 | ,001 | 1,279 | 117 | ,204 | ,494 | ,386 | -,271 | 1,259 |
| | Equal variances not assumed | | | 1,647 | 59,367 | ,105 | ,494 | ,300 | -,106 | 1,094 |
| X16 | Equal variances assumed | 1,020 | ,314 | ,542 | 117 | ,589 | ,220 | ,406 | -,584 | 1,024 |
| | Equal variances not assumed | | | ,555 | 39,032 | ,582 | ,220 | ,396 | -,581 | 1,021 |
| X17 | Equal variances assumed | ,467 | ,496 | ,701 | 117 | ,485 | ,222 | ,316 | -,404 | ,848 |

| | | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|--------|------|-------|------|--|-------|-------|
| | Equal variances not assumed | | | ,790 | 45,225 | ,434 | ,222 | ,281 | | -,344 | ,787 |
| X18 | Equal variances assumed | ,003 | ,956 | 1,054 | 117 | ,294 | ,331 | ,314 | | -,291 | ,953 |
| | Equal variances not assumed | | | 1,112 | 40,769 | ,272 | ,331 | ,298 | | -,270 | ,932 |
| X19 | Equal variances assumed | ,000 | ,992 | ,337 | 117 | ,737 | ,119 | ,353 | | -,581 | ,819 |
| | Equal variances not assumed | | | ,344 | 38,808 | ,733 | ,119 | ,346 | | -,581 | ,820 |
| X20 | Equal variances assumed | ,732 | ,394 | 1,707 | 117 | ,091 | ,471 | ,276 | | -,076 | 1,018 |
| | Equal variances not assumed | | | 1,770 | 39,726 | ,084 | ,471 | ,266 | | -,067 | 1,009 |
| X21 | Equal variances assumed | ,201 | ,655 | ,582 | 117 | ,562 | ,211 | ,362 | | -,507 | ,928 |
| | Equal variances not assumed | | | ,597 | 39,085 | ,554 | ,211 | ,353 | | -,504 | ,925 |
| X22 | Equal variances assumed | 1,429 | ,234 | 1,347 | 117 | ,180 | ,507 | ,376 | | -,238 | 1,252 |
| | Equal variances not assumed | | | 1,493 | 43,989 | ,143 | ,507 | ,339 | | -,177 | 1,191 |
| X23 | Equal variances assumed | ,263 | ,609 | 1,153 | 117 | ,251 | ,472 | ,409 | | -,339 | 1,283 |
| | Equal variances not assumed | | | 1,171 | 38,552 | ,249 | ,472 | ,403 | | -,344 | 1,288 |
| X24 | Equal variances assumed | ,997 | ,320 | ,718 | 117 | ,474 | ,277 | ,387 | | -,488 | 1,043 |
| | Equal variances not assumed | | | ,755 | 40,579 | ,454 | ,277 | ,367 | | -,464 | 1,019 |
| X25 | Equal variances assumed | 2,695 | ,103 | ,491 | 117 | ,624 | ,189 | ,385 | | -,574 | ,952 |
| | Equal variances not assumed | | | ,547 | 44,290 | ,587 | ,189 | ,346 | | -,509 | ,887 |
| X26 | Equal variances assumed | 1,695 | ,196 | 1,128 | 117 | ,262 | ,435 | ,386 | | -,329 | 1,199 |
| | Equal variances not assumed | | | 1,208 | 41,638 | ,234 | ,435 | ,360 | | -,292 | 1,162 |
| X27 | Equal variances assumed | 1,047 | ,308 | ,556 | 117 | ,579 | ,222 | ,399 | | -,568 | 1,011 |
| | Equal variances not assumed | | | ,591 | 41,093 | ,558 | ,222 | ,375 | | -,536 | ,980 |
| X28 | Equal variances assumed | ,311 | ,578 | -,012 | 117 | ,991 | -,005 | ,400 | | -,797 | ,788 |
| | Equal variances not assumed | | | -,012 | 39,156 | ,990 | -,005 | ,390 | | -,793 | ,783 |
| X29 | Equal variances assumed | 1,747 | ,189 | ,748 | 117 | ,456 | ,312 | ,417 | | -,514 | 1,139 |
| | Equal variances not assumed | | | ,818 | 43,069 | ,418 | ,312 | ,382 | | -,457 | 1,082 |
| X30 | Equal variances assumed | ,374 | ,542 | ,161 | 117 | ,872 | ,061 | ,377 | | -,686 | ,808 |

| | | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|--------|------|------|------|--|-------|-------|
| | Equal variances not assumed | | | ,162 | 37,982 | ,872 | ,061 | ,376 | | -,699 | ,821 |
| X31 | Equal variances assumed | ,340 | ,561 | ,870 | 117 | ,386 | ,338 | ,389 | | -,432 | 1,108 |
| | Equal variances not assumed | | | ,906 | 39,961 | ,370 | ,338 | ,373 | | -,416 | 1,093 |
| X32 | Equal variances assumed | ,419 | ,519 | 1,479 | 117 | ,142 | ,500 | ,338 | | -,170 | 1,170 |
| | Equal variances not assumed | | | 1,468 | 37,408 | ,150 | ,500 | ,341 | | -,190 | 1,191 |
| X33 | Equal variances assumed | ,001 | ,981 | 2,260 | 117 | ,026 | ,801 | ,355 | | ,099 | 1,504 |
| | Equal variances not assumed | | | 2,187 | 36,249 | ,035 | ,801 | ,366 | | ,059 | 1,544 |
| X34 | Equal variances assumed | 1,273 | ,261 | 1,367 | 117 | ,174 | ,533 | ,390 | | -,239 | 1,305 |
| | Equal variances not assumed | | | 1,538 | 45,171 | ,131 | ,533 | ,346 | | -,165 | 1,230 |
| X35 | Equal variances assumed | ,174 | ,678 | 2,112 | 117 | ,037 | ,862 | ,408 | | ,054 | 1,671 |
| | Equal variances not assumed | | | 2,148 | 38,653 | ,038 | ,862 | ,401 | | ,050 | 1,674 |
| X36 | Equal variances assumed | ,639 | ,426 | 1,599 | 117 | ,113 | ,634 | ,396 | | -,151 | 1,419 |
| | Equal variances not assumed | | | 1,511 | 35,237 | ,140 | ,634 | ,419 | | -,218 | 1,485 |
| X37 | Equal variances assumed | ,283 | ,596 | 1,675 | 117 | ,097 | ,643 | ,384 | | -,117 | 1,403 |
| | Equal variances not assumed | | | 1,603 | 35,747 | ,118 | ,643 | ,401 | | -,171 | 1,457 |
| X38 | Equal variances assumed | 1,919 | ,169 | ,884 | 117 | ,379 | ,339 | ,384 | | -,421 | 1,099 |
| | Equal variances not assumed | | | ,795 | 33,379 | ,432 | ,339 | ,427 | | -,529 | 1,207 |
| X39 | Equal variances assumed | 3,245 | ,074 | ,625 | 117 | ,533 | ,254 | ,406 | | -,550 | 1,058 |
| | Equal variances not assumed | | | ,561 | 33,310 | ,579 | ,254 | ,452 | | -,666 | 1,174 |

Independent Samples Test for Nationality

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----|-----------------------------|--|------|------------------------------|--------|-----------------|--------------------|--------------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | Lower | Upper | |
| X7 | Equal variances assumed | 1,876 | ,173 | -,462 | 118 | ,645 | -,145 | ,313 | -,765 | ,476 |
| | Equal variances not assumed | | | -,396 | 33,390 | ,695 | -,145 | ,366 | -,889 | ,599 |
| X8 | Equal variances assumed | ,590 | ,444 | -,723 | 118 | ,471 | -,214 | ,297 | -,802 | ,373 |
| | Equal variances not assumed | | | -,662 | 35,791 | ,512 | -,214 | ,324 | -,871 | ,442 |
| X9 | Equal variances assumed | 1,452 | ,231 | -,649 | 118 | ,517 | -,197 | ,304 | -,799 | ,404 |
| | Equal variances not assumed | | | -,565 | 33,881 | ,576 | -,197 | ,349 | -,907 | ,513 |
| X10 | Equal variances assumed | ,015 | ,902 | ,079 | 118 | ,937 | ,021 | ,269 | -,512 | ,554 |
| | Equal variances not assumed | | | ,073 | 35,997 | ,942 | ,021 | ,292 | -,571 | ,614 |
| X11 | Equal variances assumed | ,010 | ,920 | -,033 | 118 | ,974 | -,009 | ,276 | -,556 | ,538 |
| | Equal variances not assumed | | | -,031 | 38,173 | ,975 | -,009 | ,286 | -,588 | ,570 |
| X12 | Equal variances assumed | 1,088 | ,299 | -,786 | 118 | ,433 | -,215 | ,274 | -,757 | ,327 |
| | Equal variances not assumed | | | -,708 | 35,148 | ,483 | -,215 | ,304 | -,832 | ,401 |
| X13 | Equal variances assumed | 1,033 | ,312 | 1,334 | 118 | ,185 | ,503 | ,377 | -,244 | 1,250 |
| | Equal variances not assumed | | | 1,257 | 36,977 | ,217 | ,503 | ,400 | -,308 | 1,315 |
| X14 | Equal variances assumed | ,005 | ,946 | ,854 | 118 | ,395 | ,358 | ,419 | -,472 | 1,187 |
| | Equal variances not assumed | | | ,862 | 40,452 | ,394 | ,358 | ,415 | -,480 | 1,196 |
| X15 | Equal variances assumed | ,188 | ,665 | ,638 | 118 | ,525 | ,244 | ,382 | -,513 | 1,001 |
| | Equal variances not assumed | | | ,627 | 38,994 | ,534 | ,244 | ,389 | -,543 | 1,031 |
| X16 | Equal variances assumed | 3,297 | ,072 | 2,570 | 118 | ,011 | ,997 | ,388 | ,229 | 1,765 |
| | Equal variances not assumed | | | 2,302 | 34,927 | ,027 | ,997 | ,433 | ,118 | 1,876 |

| | | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|--------|------|-------|------|--|-------|-------|
| X17 | Equal variances assumed | ,806 | ,371 | ,402 | 118 | ,688 | ,125 | ,311 | | -,491 | ,742 |
| | Equal variances not assumed | | | ,374 | 36,460 | ,710 | ,125 | ,334 | | -,553 | ,803 |
| X18 | Equal variances assumed | ,500 | ,481 | ,736 | 118 | ,463 | ,227 | ,309 | | -,384 | ,839 |
| | Equal variances not assumed | | | ,694 | 37,011 | ,492 | ,227 | ,328 | | -,436 | ,891 |
| X19 | Equal variances assumed | ,593 | ,443 | 2,607 | 118 | ,010 | ,883 | ,339 | | ,212 | 1,554 |
| | Equal variances not assumed | | | 2,521 | 38,190 | ,016 | ,883 | ,350 | | ,174 | 1,592 |
| X20 | Equal variances assumed | ,027 | ,871 | -,128 | 118 | ,898 | -,035 | ,274 | | -,579 | ,508 |
| | Equal variances not assumed | | | -,130 | 40,861 | ,897 | -,035 | ,270 | | -,580 | ,510 |
| X21 | Equal variances assumed | ,235 | ,629 | ,981 | 118 | ,329 | ,348 | ,355 | | -,355 | 1,050 |
| | Equal variances not assumed | | | ,977 | 39,748 | ,334 | ,348 | ,356 | | -,371 | 1,067 |
| X22 | Equal variances assumed | 1,193 | ,277 | ,705 | 118 | ,482 | ,262 | ,371 | | -,473 | ,997 |
| | Equal variances not assumed | | | ,742 | 42,947 | ,462 | ,262 | ,353 | | -,450 | ,974 |
| X23 | Equal variances assumed | ,754 | ,387 | 1,315 | 118 | ,191 | ,527 | ,401 | | -,266 | 1,320 |
| | Equal variances not assumed | | | 1,364 | 42,045 | ,180 | ,527 | ,386 | | -,253 | 1,307 |
| X24 | Equal variances assumed | ,403 | ,527 | 1,145 | 118 | ,255 | ,433 | ,378 | | -,316 | 1,182 |
| | Equal variances not assumed | | | 1,146 | 39,981 | ,259 | ,433 | ,378 | | -,331 | 1,196 |
| X25 | Equal variances assumed | ,053 | ,818 | 1,265 | 118 | ,208 | ,478 | ,378 | | -,270 | 1,226 |
| | Equal variances not assumed | | | 1,247 | 39,156 | ,220 | ,478 | ,383 | | -,297 | 1,253 |
| X26 | Equal variances assumed | 1,039 | ,310 | ,228 | 118 | ,820 | ,087 | ,380 | | -,667 | ,840 |
| | Equal variances not assumed | | | ,244 | 44,226 | ,808 | ,087 | ,355 | | -,629 | ,802 |
| X27 | Equal variances assumed | ,298 | ,586 | 1,798 | 118 | ,075 | ,697 | ,388 | | -,071 | 1,465 |
| | Equal variances not assumed | | | 1,680 | 36,621 | ,101 | ,697 | ,415 | | -,144 | 1,538 |
| X28 | Equal variances assumed | ,007 | ,936 | 1,991 | 118 | ,049 | ,772 | ,387 | | ,004 | 1,539 |
| | Equal variances not assumed | | | 1,978 | 39,556 | ,055 | ,772 | ,390 | | -,017 | 1,560 |
| X29 | Equal variances assumed | ,153 | ,697 | 1,324 | 118 | ,188 | ,539 | ,407 | | -,267 | 1,346 |
| | Equal variances not assumed | | | 1,280 | 38,175 | ,208 | ,539 | ,421 | | -,313 | 1,392 |

| | | | | | | | | | | |
|-----|-----------------------------|-------|------|-------|--------|------|-------|------|--------|-------|
| X30 | Equal variances assumed | 1,328 | ,252 | ,325 | 118 | ,746 | ,120 | ,370 | -612 | ,853 |
| | Equal variances not assumed | | | ,302 | 36,345 | ,765 | ,120 | ,399 | -688 | ,928 |
| X31 | Equal variances assumed | 2,500 | ,116 | -,738 | 118 | ,462 | -,282 | ,382 | -1,037 | ,474 |
| | Equal variances not assumed | | | -,666 | 35,215 | ,510 | -,282 | ,423 | -1,140 | ,576 |
| X32 | Equal variances assumed | ,145 | ,704 | ,365 | 118 | ,716 | ,123 | ,337 | -,544 | ,789 |
| | Equal variances not assumed | | | ,347 | 37,451 | ,730 | ,123 | ,353 | -,593 | ,839 |
| X33 | Equal variances assumed | ,071 | ,790 | -,290 | 118 | ,772 | -,103 | ,355 | -,806 | ,600 |
| | Equal variances not assumed | | | -,296 | 40,932 | ,769 | -,103 | ,349 | -,808 | ,601 |
| X34 | Equal variances assumed | ,149 | ,700 | ,690 | 118 | ,492 | ,265 | ,385 | -,496 | 1,027 |
| | Equal variances not assumed | | | ,676 | 38,860 | ,503 | ,265 | ,392 | -,529 | 1,059 |
| X35 | Equal variances assumed | ,648 | ,423 | ,042 | 118 | ,966 | ,017 | ,408 | -,791 | ,825 |
| | Equal variances not assumed | | | ,039 | 36,190 | ,969 | ,017 | ,441 | -,877 | ,911 |
| X36 | Equal variances assumed | ,382 | ,538 | 1,012 | 118 | ,314 | ,396 | ,391 | -,379 | 1,171 |
| | Equal variances not assumed | | | ,992 | 38,878 | ,327 | ,396 | ,399 | -,412 | 1,204 |
| X37 | Equal variances assumed | ,566 | ,453 | 1,898 | 118 | ,060 | ,712 | ,375 | -,031 | 1,455 |
| | Equal variances not assumed | | | 1,777 | 36,710 | ,084 | ,712 | ,401 | -,100 | 1,524 |
| X38 | Equal variances assumed | ,078 | ,781 | 1,779 | 118 | ,078 | ,663 | ,373 | -,075 | 1,401 |
| | Equal variances not assumed | | | 1,794 | 40,369 | ,080 | ,663 | ,370 | -,084 | 1,410 |
| X39 | Equal variances assumed | 1,311 | ,255 | ,975 | 118 | ,331 | ,388 | ,398 | -,400 | 1,176 |
| | Equal variances not assumed | | | 1,018 | 42,490 | ,314 | ,388 | ,381 | -,381 | 1,156 |

Appendix B

1. Mean values of the variables revealed from T-Test for male vs female, based on Descriptives

Table B- 1: Mean values of the variables revealed from T-Test for male

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00015 | 62 | 1.00 | 7.00 | 2.9839 | 1.72248 |
| VAR00037 | 62 | 1.00 | 7.00 | 3.4355 | 1.60553 |
| Valid N (listwise) | 62 | | | | |

Table B- 2: Mean values of the variables revealed from T-Test for female

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00015 | 58 | 1.00 | 7.00 | 2.2241 | 1.64416 |
| VAR00037 | 58 | 1.00 | 7.00 | 4.0862 | 1.76997 |
| Valid N (listwise) | 58 | | | | |

2. Mean values of the variables revealed from T-Test for Tartu vs Tallinn based on Descriptives

Table B- 3: Mean values of the variables revealed from T-Test for Tartu

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00007 | 85 | 1.00 | 7.00 | 5.1882 | 1.26768 |
| VAR00008 | 85 | 2.00 | 7.00 | 5.4353 | 1.29511 |
| VAR00010 | 85 | 2.00 | 7.00 | 5.0824 | 1.13611 |
| VAR00012 | 85 | 1.00 | 7.00 | 4.6941 | 1.10220 |
| VAR00033 | 85 | 1.00 | 7.00 | 4.4588 | 1.62241 |
| Valid N (listwise) | 85 | | | | |

Table B- 4: Mean values of the variables revealed from T-Test for Tallinn

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00007 | 22 | 1.00 | 7.00 | 4.4091 | 1.84285 |
| VAR00008 | 22 | 2.00 | 7.00 | 4.4545 | 1.26217 |
| VAR00010 | 22 | 1.00 | 6.00 | 4.5000 | 1.37148 |
| VAR00012 | 22 | 1.00 | 7.00 | 4.0909 | 1.50899 |
| VAR00033 | 22 | 1.00 | 6.00 | 3.6818 | 1.55491 |
| Valid N (listwise) | 22 | | | | |

3. Mean values of the variables revealed from T-Test for Bachelor vs Master based on Descriptives

Table B- 5: Mean values of the variables revealed from T-Test for Bachelor

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00023 | 53 | 1.00 | 7.00 | 3.3208 | 1.82687 |
| Valid N (listwise) | 53 | | | | |

Table B- 6: Mean values of the variables revealed from T-Test for Master

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00023 | 60 | 1.00 | 7.00 | 2.7333 | 1.78379 |
| Valid N (listwise) | 60 | | | | |

4. Mean values of the variables revealed from T-Test for Unemployed vs Employed based on Descriptives

Table B- 7: Mean values of the variables revealed from T-Test for Unemployed

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00020 | 94 | 1.00 | 7.00 | 4.3511 | 1.24181 |
| VAR00033 | 94 | 1.00 | 7.00 | 4.5213 | 1.55701 |
| VAR00035 | 94 | 1.00 | 7.00 | 4.7021 | 1.82474 |
| Valid N (listwise) | 94 | | | | |

Table B- 8: Mean values of the variables revealed from T-Test for Employed

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00020 | 26 | 2.00 | 7.00 | 3.9231 | 1.16355 |
| VAR00033 | 26 | 1.00 | 7.00 | 3.7308 | 1.61388 |
| VAR00035 | 26 | 1.00 | 7.00 | 3.8846 | 1.75104 |
| Valid N (listwise) | 26 | | | | |

5. Mean values of the variables revealed from T-Test for Estonians vs Other based on Descriptives

Table B- 9: Mean values of the variables revealed from T-Test for Estonians

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00016 | 26 | 1.00 | 7.00 | 3.2308 | 2.02599 |
| VAR00019 | 26 | 2.00 | 7.00 | 5.0000 | 1.60000 |

| | | | | | |
|--------------------|----|------|------|--------|---------|
| VAR00028 | 26 | 1.00 | 6.00 | 3.3462 | 1.76505 |
| VAR00037 | 26 | 1.00 | 7.00 | 4.3077 | 1.84974 |
| VAR00038 | 26 | 1.00 | 7.00 | 4.2692 | 1.66271 |
| Valid N (listwise) | 26 | | | | |

Table B- 10: Mean values of the variables revealed from T-Test for Other

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| VAR00016 | 94 | 1.00 | 7.00 | 2.2340 | 1.66834 |
| VAR00019 | 94 | 1.00 | 7.00 | 4.1170 | 1.50880 |
| VAR00028 | 94 | 1.00 | 7.00 | 2.5745 | 1.74436 |
| VAR00037 | 94 | 1.00 | 7.00 | 3.5957 | 1.64819 |
| VAR00038 | 94 | 1.00 | 7.00 | 3.6064 | 1.68624 |
| Valid N (listwise) | 94 | | | | |

Appendix C

Figure 2 Path model

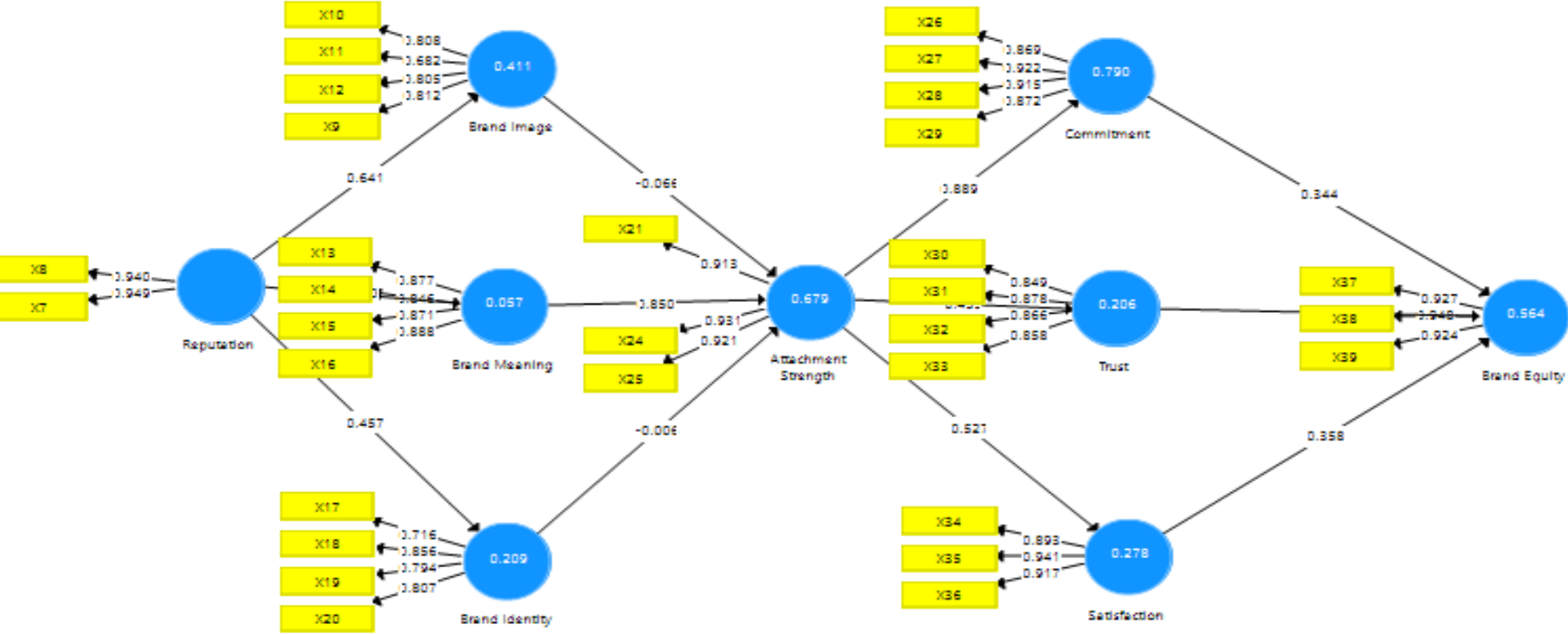


Figure C- 1: Solution of the model using SmartPLS 3 without the two variables X22 and X23

Appendix D

Table D- 1: Outer weights

| | AS | BE | BID | BIM | BM | C | R | S | T |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| X7 | | | | | | | 0.550 | | |
| X8 | | | | | | | 0.509 | | |
| X9 | | | | | | | 0.447 | | |
| X10 | | | | 0.295 | | | | | |
| X11 | | | | 0.235 | | | | | |
| X12 | | | | 0.296 | | | | | |
| X13 | | | | | 0.279 | | | | |
| X14 | | | | | 0.280 | | | | |
| X15 | | | | | 0.302 | | | | |
| X16 | | | | | 0.288 | | | | |
| X17 | | | 0.227 | | | | | | |
| X18 | | | 0.349 | | | | | | |
| X19 | | | 0.375 | | | | | | |
| X20 | | | 0.299 | | | | | | |
| X21 | 0.355 | | | | | | | | |
| X24 | 0.366 | | | | | | | | |
| X25 | 0.363 | | | | | | | | |
| X26 | | | | | | 0.285 | | | |
| X27 | | | | | | 0.290 | | | |
| X28 | | | | | | 0.277 | | | |
| X29 | | | | | | 0.266 | | | |
| X30 | | | | | | | | | 0.260 |
| X31 | | | | | | | | | 0.308 |
| X32 | | | | | | | | | 0.274 |
| X33 | | | | | | | | | 0.317 |
| X34 | | | | | | | | 0.351 | |
| X35 | | | | | | | | 0.358 | |
| X36 | | | | | | | | 0.381 | |
| X37 | | 0.358 | | | | | | | |
| X38 | | 0.358 | | | | | | | |
| X39 | | 0.356 | | | | | | | |

Non-exclusive licence to reproduce thesis and make thesis public

I, _____ Rustam Asadli _____,
(*author's name*)

1. herewith grant the University of Tartu a free permit (non-exclusive licence) to:

1.1. reproduce, for the purpose of preservation, including for adding to the DSpace digital archives until the expiry of the term of copyright, and

1.2. make available to the public via the web environment of the University of Tartu, including via the DSpace digital archives, under the Creative Commons licence CC BY NC ND 3.0, which allows, by giving appropriate credit to the author, to reproduce, distribute the work and communicate it to the public, and prohibits the creation of derivative works and any commercial use of the work from **30/06/2023** until the expiry of the term of copyright,

Brand Equity of A. Le Coq beer,
(*title of thesis*)

supervised by _____ Dafnis N. Coudounaris _____,
(*supervisor's name*)

2. I am aware of the fact that the author retains the rights specified in p. 1.

3. I certify that granting the non-exclusive licence does not infringe other persons' intellectual property rights or rights arising from the personal data protection legislation.

Rustam Asadli

25/05/2020