Consumer psychographic surveys as part of the decision-making in customer relationship management in omni-channel retail environments -Case Tokmanni

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Abstract

The theoretical understanding of online shopping behavior and customer relationship management have received much attention among researchers. Less focus has been given to understanding how the information on online shopping behavior combined with customer psychographic attributes can be used when developing online stores as part of the customer relationship management strategy in omni-channel retail environment. This study develops and empirically tests a customer survey, with the aim of to better understand customer needs and behavior in online stores in omni-channel retail environment. The survey data is combined with the purchase data of one Finnish discounter retailer, and four different regression analyses are done to study if the customer psychographic attributes explain the purchase behavior. The results give valuable information as well as relationships between the customer behavior and psychographics. Based on the results the case company can develop its online store to better serve customer needs, thus yielding to better customer-based performance and enhanced omni-channel strategy as part of the customer relationship management.

Key words: omni-channel retail, CRM, consumer behavior, consumer psychographics, consumer surveys, online store development
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1. Introduction

A decade back, it was fairly rare if traditional brick and mortar retailers had an online store not to mention a multichannel strategy. Today it is rather default for every retailer to have an online store in addition to the brick and mortar store to serve their customers 24/7 (Prea y Monsuwé et al., 2004). However, since customers are more demanding (Rigby, 2011) and expect every retailer to be present in both channels, some retailers join the online channel due to the pressure, and therefore, do not have a multichannel strategy not to speak of an omni-channel strategy as part of the customer relationship management (CRM). By definition, omni-channel refers to a seamless, unified shopping experience, where customers can combine various integrated channels within a single purchase process (Piotrowicz & Cuthbertson, 2014). A mixture of different channels are used together and at the same time to satisfy the changing consumer purchase behavior (Ansari et al., 2008; Dholakia et al., 2010). Customers have different motives to visit the online store (Rigby, 2011) and retailers have to recognize these distinct motives and latent needs to better understand customer behavior and hence develop their omni-channel strategy and the online store to better serve their customers. There is an emerging need for retailers to adapt an omni-channel strategy as part of their CRM for understanding the changing consumer behavior and needs, and further to ensure their competitiveness in the highly competitive environment (Rigby, 2011).

Consumer shopping behavior in different environments and customer relationship management have received much attention among researchers. For instance, consumers’ hedonic and utilitarian motivations for online shopping behavior are broadly studied (Childers et al., 2002; O’Brien, 2010; Overby & Lee, 2006). However, the previous research on consumer behavior in multichannel environment is still under-research domain and focuses mostly on two general approaches: (1) segmenting and profiling customers based on their multichannel preferences and (2) studying consumers’ channel selection and migration processes (Dholakia et al., 2010). Whereas CRM has received tremendous interest among researchers already since the 90’s’. To a growing extent, the CRM studies have emphasized the value of customer-level data and how it can be utilized in decision-making in order to increase for instance customer share and retention rates (Verhoef et al., 2001; Verhoef, 2003). However, no past research has merged these two tracks and analyzed how by combining customer-level data and customer psychographic data, for instance motivations to shop online, managers can gain in-depth knowledge of their customers in the omni-channel
environment, and further, how the knowledge can be used when developing online stores as well as support the decision-making as part of an effective CRM strategy. In addition, the literature on online store development as part of the customer relationship management is rather rare. Future research about the topics is demanded, in order to better understand the phenomenon.

This study makes a contribution to this discussion by studying consumer psychographics, such as shopping orientation, motivations to shop online, as well as online store attribute valuations, and later combines the information with customer-level purchase data in order to better understand customer behavior and needs in an omni-channel retail environment. Especially, this study identifies a research gap in the knowledge of how to analyze the data and use it in support of decision-making and to enhance customer relationship management in omni-channel retail environment.

The topic is approached through a quantitative study for a case company, a Finnish general discounter Tokmanni. This is a customer-oriented study with a practical approach, which aims to create a base for a theory on how to (1) study customer psychographics through a customer survey, (2) combine the information with customer-level purchase data, and (3) support the decision-making when developing online store based on the findings. The aim of this thesis is to create a framework for omni-channel retailers to study customer psychographics and hence, recognize online store development objects based on customer characteristics and behavior. Furthermore, yielding to better customer-based performance and enhanced omni-channel strategy as part of the customer relationship management.
2. Literature review

The literature review will discuss prior research on customer relationship management and focus especially on multichannel customer management. In addition, previous research on value creation and multichannel strategy are covered. Three different frameworks are included and discussed as a central part of the theoretical framework of this thesis. This research aims to give empirical evidence on how consumer psychographic surveys linked to actual purchase data can give valuable information for the managers in omni-channel retail environment when developing their online store as part of the omni-channel strategy. Consumer psychographics are studied through their shopping orientation, motivations to shop online, and online store attribute valuations. The theoretical and empirical focus is on online stores, however, the study methodology can be applied to different channels as well.

This study is conducted in omni-channel retail environment, however, as Lehikoinen (2015) noted in her study of consumers’ channel choice in omni-channel retail environments, the existing research and literature on the topic is still fairly scarce, which is why research on multichannel retailing is used to in order to better understand the phenomena and further gain a deeper theoretical knowledge of it. Hence, due to the similarities of the two constructs and the lack of omni-channel literature, the terms (omni- and multichannel) are considered interchangeable in this thesis.

2.1 CRM in multichannel environment

The tremendous interest towards customer relationship management (CRM) began to grow in the 1990s due to the rapid development of technology (Ling & Yen, 2001). Regardless of the size or field of the business, companies are motivated to adopt CRM processes to manage the relationships with their customers the most effective way (Ngai, 2005) – in the end there clearly is nothing more important than the customer. Enhanced customer relationship management can ultimately lead to greater customer loyalty, increased purchases, retention, and in addition, greater profitability (Reinartz et al., 2004; Verhoef, 2003). Additionally, the fast growth of internet and new technologies have created new opportunities for marketing, and further transformed the way companies can manage the relationships with their customers (Bauer et al., 2002). CRM processes make the most of technology innovations with their ability to collect and analyze customer behavior
and patterns, develop predictive models (Farzin & Abadi, 2014), create effective customized communications, and offers as well as deliver value to individual customers (Chen & Popovich, 2003). According to Payne and Frow (2005) CRM is not just an IT solution that is used to acquire and grow a customer base, instead it encompasses a combination of strategic vision, the utilization of proper information management and high-quality operations, fulfillment and service as well as deep understanding of the customer value in multichannel environment.

They define CRM as “a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationships with key customers and customer segments. CRM provides enhanced opportunities to use data and information to both understand customers and cocreate value with them. This requires a cross-functional integration of processes, people, operations, and marketing capabilities that is enabled through information, technology, and applications” (Payne & Frow, 2005 p. 168). This definition is also used a base definition for CRM in this thesis.

Since the beginning of the 2000s CRM literature has gotten an additional research path on electronic customer relationship management (eCRM), which is essentially an adaption of CRM in e-commerce environment (Farooqi & Dhusia, 2011). Compared with traditional customer relationship management, eCRM tools enable for instance easier customization, personalization, and mass-marketing as well as making the customer less passive and more active (Khalifa & Shen, 2005). However, in the multichannel retailing environment eCRM can be seen as part of a comprehensive CRM strategy, and therefore, these two terms are also considered interchangeable in this thesis.

2.2 CRM framework in multichannel environment

Payne and Frow (2005) created a strategic framework for CRM in multichannel environment, which has been widely cited in academic literature ever since. The framework consists of five key processes: (1) the strategy development process, (2) the value creation process, (3) the multichannel integration process, (4) the information management process, and (5) the performance assessment process (see Figure 1 below). In this study, we are particularly interested in the value creation and
the information management processes. The former due to its quality to determine what value the company provides to its customers and vice versa, what value the company can receive from its customers. The latter, due to its ability to support all the previously named processes of CRM; the strategy development process, the value creation process, the multichannel integration process, and further the performance assessment process.

Figure 1. Conceptual framework for CRM strategy (redrawn after Payne and Frow, 2005)

The successful management of value exchange involves maximization of the lifetime value of the key customer segments by co-creation (Christopher et al., 2013; Payne & Frow, 2005). The value customer receives from company has earlier been formatted for example on the concept of customer’s overall assessment of the utility of a product compared with what is received (Zeithaml, 1988) as well as perceived quality that is conformed for the relative price of the product (Gale & Wood, 1994). However, there has been a shift evolving from earlier thinking that perceives the customer as a co-creator of value instead of a pure value receiver (Prahalad & Ramaswamy, 2004a; Vargo & Lusch, 2004). In the process of value co-creation, customers can share their ideas and
consumption experiences in such a way that the company feels duty bound to re-organize for instance its’ current product portfolio (Kristensson et al., 2007). Most importantly, the interaction between the company and the consumer is the core of value creation (Prahalad & Ramaswamy, 2004b). Further, the benefits that the customer receives through the relationship can be formed as the customer value proposition (Anderson et al., 2006). Whether the value proposition is liable to result in an improved customer experience, a company should undertake a value assessment to determine the relative importance that customers set on different attributes of the service or product (Payne & Frow, 2005). Further, Payne and Frow (2005) suggest that analytical tools can be used to identify various customer segments with different product attribute or service needs that are not fully satisfied by the existing offers or services. As for the value the company receives from its customers come, presumably, inter alia from the margins and profits (Butz & Goodstein, 1997). For instance, by calculating customer lifetime value for different segments enables companies to focus on the most profitable customers (Payne & Frow, 2005). The value creation process is one of the most crucial processes of CRM due to its quality to translate business strategies into specific value propositions that demonstrate the value to be delivered to the customer as well as the value received by the organization (Payne & Frow, 2005).

The information management process involves the gathering, comparison, and use of customer data and information to create customer insight, appropriate marketing responses (Payne & Frow, 2005) as well as develop the business in order to improve the created value for the customers and further maximizing customer lifetime value (Kumar et al., 2006).

Over the past decade, retailers have started to collect vast amounts of information at the customer level measuring for instance purchases, customer satisfaction as well as marketing activities (Verhoef et al., 2010). However, many retailers still do not invest in building large customer databases or alternatively collect large amounts of data, but not at the customer level (Verhoef et al., 2010) or do not analyze it soundly. According to Verhoef et al. (2010) the presence of big data has created enormous opportunities as well as challenges in retailing for both managers and researchers.

There exist numerous empirical studies on large customer databases and how they can be utilized in order to increase loyalty metrics, for instance, customer share, retention rates, and cross-buying
Kumar et al., 2008; Verhoef et al., 2001; Verhoef, 2003). In addition to knowledge on how to influence and predict customer loyalty, other studies have focused on how to optimize and influence customer value (Rust & Verhoef, 2005; Venkatesan & Kumar, 2004; Venkatesan et al., 2007a). Further, Verhoef et al. (2010) contributed to the discourse by discussing the ways retailers are leveraging data from the customer relationship to improve performance outcomes related to market share, revenue, customer value as well as long-term competitive advantage. To highlight these issues, they created a broad-based conceptual model (see Figure 2 below), where the customer relationship management starts by data collection and integration, further leading to managerial insights into better decision making and improved performance (Davenport and Harris, 2007). According to Verhoef et al. (2010) conceptual model, collected data involves point of sale (POS), customer and supply chain data. Retailers often record customer level transaction data, including the number of previous transactions, historical value, as well as types of products purchased (Verhoef et al., 2003). In this study, we are particularly interested in customer level data.

Figure 2. Conceptual model for CRM (redrawn after Verhoef et al., 2010)

Neslin and Shankar (2009) in turn, studied the multichannel customer management (MCM), which is defined as “the design, deployment, and evaluation of channels through which firms and customers interact, with the goal of enhancing customer value through effective customer acquisition, retention, and development” (Neslin et al., 2006 p. 95). Compared with CRM, multichannel customer management can offer deeper insights on issues like channel choice (Kumar
& Venkatesan, 2005), channel migration (Thomas & Sullivan, 2005), and the value of multichannel customers versus single channel customers (Ansari et al., 2008).

Neslin et al. (2006) identified five key challenges managers must focus on in order to pursue effective multichannel customer management: (1) the data integration, (2) understanding consumer behavior, (3) the channel evaluation, (4) the allocation of resources across channels, and (5) the coordination of channel strategies. Later Neslin and Shankar (2009) created a multichannel customer management decision framework (MCMD) to help practitioners to manage the named challenges. The framework includes five tasks: (1) analyze customers, (2) develop multichannel strategy, (3) design channels, (4) implement, and (5) evaluate. Interesting within the framework of this study, are the first three tasks (see Figure 3 below).

Figure 3. A multichannel customer management decision (MCMD) framework (redrawn after Neslin and Shankar, 2009)

The authors name customer segmentation as one of the most crucial issues in analyzing customers. According to Kotler and Keller (2009) good segmentation requires measurable, accessible, substantial, and actionable segments. Measuring different channel segments is possible, if there is channel-specific purchase data available (Neslin et al., 2009). In multichannel retail environment, customers differ on various characteristics depending on for instance their channel usage. Segments
created based on the channel usage are most likely differentially responsive in the respect that customers who use different channels most likely have diverse needs as well (Neslin et al., 2009). Konus et al. (2008) note that in order to segment the market successfully based on the multichannel customer segmentation, it must be taken into account that consumers use channels for multiple phases of their decision process, multichannel customers segmentation might differ according to the product category and lastly, when characterizing the segments demographic and psychographic covariates need to be identified. Even though the literature on the psychology of shopping behavior in different environments (i.e. online and offline) is extensive, consumer purchase behavior within multichannel environment is still under-researched domain (Dholakia et al., 2010). Consumers use different channels in tandem during the purchase process – for instance, a consumer might search the internet to obtain product information and compare prices, then visit a retailer to view and touch the product and finally order the chosen product via mobile application (Ansari et al., 2008). Hence, depending on the stage of the purchase process, consumers adapt and combine different channels for various actions (Rigby, 2011; Verhoef et al., 2015). According to Nunes and Cespedes (2003) when designing channel strategies firms should not focus on capturing targeted demographic segments, instead channels should be designed to support unfettered buyers’ behavior.

The second task of Neslin and Shankar’s (2009) multichannel customer management decision framework is to develop a multichannel strategy. According to the authors, there are three potential visions that drive multichannel strategy: efficiency, segmentation, and customer satisfaction. Venkatesan et al. (2007b) found that when pursuing a successful multichannel strategy retailers are likely to obtain better customer retention and growth and that a multichannel shopping behavior is associated with higher customer profitability. Furthermore, several studies suggest that a successful multichannel strategy is linked to better customer satisfaction (Wallace et al., 2004) and customer loyalty (Neslin & Shankar, 2009; Wallace et al., 2004). According to Berman and Thelen (2004) a well-integrated multi-channel retail strategy involves highly-integrated promotions, the consistency of products across channels, as well as an integrated information system, which shares data on pricing, customers, and inventory across various channels.

Third task of Neslin and Shankar’s (2009) framework is channel design, including decision making on which channels to use, how to utilize channels to manage the customer life-cycle, which functions to emphasize on each channel and lastly, if the customers should be “right-channeled”.
According to the authors, there is an important gap in the current knowledge of if and how multiple channels provide benefits and opportunities for firms to deepen customer relationships. Further, they name as one of the key issues the lack of knowledge on how could firms collect information to determine their optimal channel mix and study for instance consumer shopping behavior across channels. They recognize a need for a model or decision support system to enable firms to decide which channels to employ and manage.

2.3 Research model

The importance of customer behavior data and information is obvious and clearly emphasized both in CRM and multichannel customer management literature. However, there exists no research on how customer databases combined with customer survey data of the psychographic information can be used in order to improve customer relationship management in multichannel retail environment, and consequently customer loyalty as well as customer life time value, and hence firm performance outcomes. Thus, the aim of this thesis is to prove that studying customer psychographic attributes and needs through customer surveys can give valuable insights for managers pursuing an omni-channel retail strategy. The focus of this study is on online stores and how the customer survey data combined with actual purchase data can be utilized when developing the online store as part of the customer relationship management strategy in omni-channel retail environment. Further, the aim is to create a framework for managers to study and hence recognize online store development objects and serve as decision support framework.

Due to the emerged importance of consumer behavior and characteristics as part of the customer relationship management emphasized in literature, three different aspects were studied through the survey: (1) consumers’ shopping orientation, (2) motivations to shop online, and (3) online store attribute valuations. These aspects serve as the basis for the framework created in this thesis.

Customer shopping behavior in different environments (i.e. offline and online) has been widely studied in the past research. Many research suggest online shoppers to be different from traditional brick and mortar store shoppers. Based on past research, online shoppers are found to value more convenience and willing to pay more in order to save time (Szymanski & Hise, 2000) and may also dislike shopping (Morganosky & Cude, 2000). In addition, online shoppers may demand more
product variety, more product information as well as more specialized products compared with traditional offline channel shoppers (Szymanski & Hise, 2000). Further, past research suggest that online shoppers are not particularly motivated to shop for recreation and fun (Mathwick et al., 2001). Therefore it is essential to gain knowledge of the online store users’ behavior to better serve the different needs of customers in online environment. Many retailers use analytical tools like Google analytics to get insights of their customers and their online behavior. Google analytics gives information about customers’ demographic profiles, for instance, age and gender, and their click-path on the website. However, those information are also estimates based on the customer’s online behavior and usage. Additionally, Google analytics is not able to provide any information of the psychographics of the customers, such as interests, opinions, needs, values, and attitudes (Wells, 1975). Hence, Google Analytics and similar online analytical tools rather answer the question of what the customers are doing instead of why. Hence, there is a need to understand the relationship between these two in the multichannel environment: what customers are doing and why. This research aims to answer the question of why by studying consumers’ psychographic qualities such as shopping orientation, motivation to shop online, and online store attribute valuations.

According to Choi and Park (2006) consumers may differ in their shopping orientations due to different shopping activities, interest, and opinions. Stone (1954) categorized shoppers into four distinct groups: economic, personalizing, ethical, and apathetic shoppers. Based on Stone’s (1954) categorization, several researchers have either simplified or expanded the classifications (Darden & Howell, 1987). In addition, different classifications have been done based on various shopping context, such as traditional retail stores and the online environment (Karande & Ganesh, 2000). Within the framework of this single case study focused on omni-channel retailing environment a classification including three different shopping orientations was chosen: economic, recreational, and apathetic shopping orientation. Economic shoppers tend to compare prices and different alternatives carefully prior to purchase decision (Stone, 1954). As for, recreational shoppers enjoy shopping and find it as a way of spending free time (see Bellenger et al., 1977). Whereas apathetic shoppers tend to have low interest towards shopping and find it just as a mandatory task (Choi & Park, 2006; Stone, 1954).

In addition to shopping orientation, consumers’ motivations to shop online and online store attribute valuations help us to better understand consumer behavior and answer the “why” question,
and further help managers’ decision-making related to online store development as part of the omni-channel strategy. Ganesh et al. (2010) found several themes that emerged from the analysis of their interview data related to online shopping motivations and attributevaluations. The motivations included the overall shopping convenience, ability to easily search, increased product availability and variety, price hunting, social and trend shopping as well as avoiding regular shopping. The attributevaluations included website’s convenience, prices, product selection, as well as certain site features such as offerings and security. Based on their interview findings and past research on traditional and online shopping as well as a review of other relevant literature they created two scales of which five motivation categories were selected for this study: convenience (referring to attributes such as shopping from home and completing shopping quickly), role enactment (referring to looking for deals and comparison-shopping), avant-gardism (referring to keeping up with trends and shopping new products), affiliation (referring to interacting with other online shoppers) and personalized services (referring to being personally notified of special deals and new products). Moreover, five online store attributes were selected: e-store essentials (referring to online store attributes such as safety, ease of ordering, paying, and returning), offline presence (referring to ability to return purchased products to physical store as well as the location of the offline store), price orientation (referring to special deals, the frequency of sales, and notifications of sales) and website attractiveness (referring to attributes such as the design and appearance of the site).

These three different scales are used in this study to gain knowledge of the consumer psychographics and answer the “why” question. Moreover, the psychographic information is combined with the actual purchase behavior data in order to also answer the “what” question and understand the relationship between the motives and actions. Decision-making is often based on customer-level data such as purchases and online behavior data such as Google analytics offers. The aim of this study is to prove that by studying consumer psychographics and combining that information with the purchase data, managers can gain in-depth knowledge of their customers and support the decision-making process when developing online stores as part of the omni-channel strategy.
3. Methodology

The following chapter begins by introducing the case company Tokmanni after which the data collection and research measures are presented. Lastly, the two data sets are introduced.

3.1 Case company

This study was conducted in collaboration with a case company, a Finnish discount retailer Tokmanni. A single case study method was chosen to fit for the purpose of this research, due to its’ ability to richly describe a phenomenon whereof exists only limited theoretical knowledge and further to demonstrate the importance of the phenomenon (Siggelkow, 2007). Thus, as consumer behavior in an omni-channel retailing environment lacks academic research, the case study method fitted well the research context. Broadly speaking another case study of the same theme has been conducted earlier for the same case company. The qualitative study conducted by Lehikoinen (2015) focused on consumers’ channel choice in omni-channel retail environment, approached through a case example Tokmanni.

Tokmanni Group is the largest discount retail chain in the Nordic countries with 734 million € revenue in 2014 and over 40% market share in general discounting sector in Finland. Tokmanni employs approximately 3000 people and has more than 150 stores all around Finland, as well as an online store. (Tokmanni Group 2015 (accessed 29.10.2015) Tokmanni was acquired in 2012 by a Nordic Capital private equity fund (Nordic Capital 2015) and it has been publicly discussed that Nordic Capital is preparing Tokmanni for listing (Talouselama 2015). Therefore, there would be an additional need for increasing the value of the company by developing for instance the online store.

The company aims to offer its customers a wide range of quality products at affordable prices. The product assortment in the stores includes everything from household and textiles to tools and electronics. The assortment is slightly more limited online, for instance groceries and clothing are only available on brick-and-mortar stores. In addition to the extensive assortment, Tokmanni’s competitive edge rests on low prices and broader store network compared with other Finnish hypermarkets and discounters.
Tokmanni is a particularly interesting choice for a case company for this study because it is undergoing a big brand renewal as well as making strategic decisions in order to improve the omni-channel experience, especially in the online store.

One big part of Tokmanni’s brand renewal is the change from multiple brand owner to one brand strategy. Tokmanni Group used to consist of seven different discounter brands including Tokmanni, Tarjoustalo, Robinhood, Maxi-Kodintukku, Vapaa valinta, Säästöpörssi, and Maxi-Makasiini but according to the new strategy all the brands will be merged under the Tokmanni name by the year 2016. The company is simultaneously renewing and developing its stores in order to offer customers a better in-store-experience.

In addition, Tokmanni is an interesting retailer to study in the omni-channel environment, since one of its current priorities is to develop an efficient omni-channel strategy. The company has had an online store since 2011, which was first under name “Toknet” in order to serve the customers of all the different discounter brands. However, at the beginning of 2015 as part of the company’s brand renewal strategy Tokmanni opened a renewed and unified online store tokmanni.fi. At the same time, the company implemented a social media strategy and opened its’ first Facebook page. Now Tokmanni is investing in developing a working and pleasant omni-channel shopping experience for its customers. The company already has a well working in-store pick-up and return service for products ordered online, however, the aim is to improve the synergy between the channels to make the omni-channel experience even better. Thus Tokmanni is now developing its online store into better serve different customer segments with different motivations for online shopping.

These aspects give an excellent basis for the study and make Tokmanni an interesting case example to offer novel insights about factors such as online store development in omni-channel environment and customers’ motivations and valuations in shopping online.
3.2 Data collection

Data collection was conducted through an online questionnaire. Because the aim was to reach people who already have some experiences of Tokmanni, a link to the questionnaire was posted on Tokmanni’s official Facebook page. In addition, an invitation to the questionnaire was sent to Tokmanni’s e-newsletter receivers and on the Tokmanni webpage. As an incentive to participate, one 100 euro gift card to Tokmanni’s online store was raffled among the respondents. The questionnaire was open online around two weeks from the 18th to 30th of September in 2015.

The research questionnaire was pretested with 8 people to ensure the functionality. In response to feedback gathered during the test-phase, some minor changes were made to the wording of the questions, and a few answer options were added to two of the question patterns. Later, the online version was pre-tested with 5 people to ensure the technical functionality. However, despite the successful pre-tests, some of the respondents reported problems with the questionnaire functionality. This might have affected some of the responses.

According to the Survey pal platform, the questionnaire reached 23 469 people, yielding to 9400 completed responses, representing a 40% response rate. However, it is not possible to measure an exact response rate, due to the nature of the questionnaire distribution.

3.3 Measures

The questionnaire contained seven thematic groupings of questions, including demographic and psychographic factors, charting the current online store usage as well as the shopping behavior both in online and brick-and-mortar stores, and respondents’ channel choice across different stages of the buying process. In addition, respondents’ shopping motivations online and online store attribute valuations were asked in order to gain a deep understanding of the omni-channel shopping phenomenon. Lastly, respondents had a chance to name, in their opinion, good online stores and give open feedback related to Tokmanni’s online store.

The items for each construct and scale in the questionnaire were selected on the basis of an extensive literature review. In total three different scales were used in further analysis with the purpose of studying respondents’ online shopping behavior, motivations and valuations. All of the
questions were measured on a 7-point Likert scale and were translated from the original English versions to Finnish to better fit the research environment. The translations were made carefully in order to retain the nature and meaning of the items. However, in this paper, the scales and items are discussed with their original English versions. The original questionnaire can be found in Appendices 8.5.

The items of the online shopping orientation scale were derived from Choi and Park’s (2006) study. The authors selected the items from past research of Alreck and Settle (2002), Karande Ganesh (2000), Shim and Mahoney (1991) and Vijayasarathy (2003), and modified them to reflect multichannel settings (Choi et al., 2006).

Both online shopping motivation scale as well as online store attribute valuation scale were derived from Ganesh et al. (2010) study. One item was dropped out from the “avant-gardism” construct of the shopping motivations scale, since it was not natural in the cheap retailing context, where the focus is on prices. In addition, in total three items were dropped out form the online store attribute importance scale – one from each of the following constructs: e-store essentials, offline presence and merchandise variety. Either they did not fit the nature of the study environment or could not be translated naturally into Finnish. However, all the item reductions were conducted in a way that the nature of the original constructs conserved (Hair et al., 2010).

On request of the case company, some additional items were added to the scales in order to better understand their customer needs towards certain specific attributes. However, the self-added items were left out from the analysis for this thesis.

3.4. Research data

The research data used in the analysis consisted of two different data sets – the actual questionnaire data gathered online and a purchase history data of the case company’s online store from the past year (2015). The two datasets were connected in order to study if certain psychographic attributes explain the purchase behavior of the respondents.
3.4.1. Survey data

The survey yielded in total 9400 sufficiently completed responses. A thorough analysis was conducted to evaluate the quality of the responses. Since all the questions were required to answer, no missing values were observed, however, there occurred a high likelihood that some of the respondents clicked-through the questionnaire in order to take part to the prize raffle. Therefore, all the responses conducted in less than 10 minutes were deleted. In addition responses, where any of the scales included only one certain number throughout the scale were deleted. Thus, after the data reduction, the final number of responses used for the analysis was 5590. The high number of non-valid responses can potentially be explained by the nature of the case company’s customers. The prize (100€) draw many to take part, however, either they did not want to answer the questionnaire carefully, or it was considered too long, which also explains the click-through responses. Nonetheless, 5590 responses can be considered as a very good number for a consumer survey.

Of the respondents 61% were female and 39% male. The biggest respondent cohorts were the 45-54-year-old (27%) and the 55-64-years-old (26%). A clear majority of the respondents were from western Finland (30%), all the other residences were quite evenly distributed. 47% of the respondents were working, 32% retirees, and 17% unemployed. A majority of the respondents have a lower educational degree, for instance 35% vocational school, whereas only 12% have an university degree. Further, 29% of the respondents had a yearly income less than 20.000€. Clear majority were either single (26%) or lived with one other person (45%). All the demographic characteristics fit well Tokmanni’s core customer profile. According to a customer survey conducted in 2015, the average age of Tokmanni’s core customer is around 47-year-old and the lower income bracket is slightly more weighted. In addition, single and two person households are strongly weighted as in this study as well. Additionally, the section of retirees and unemployed are much larger than the sample average. Also in this survey the amount of retirees and unemployed are notable. However, most of the core customers live in Uusimaa and southern Finland, whereas, a clear majority of the respondents of this study live in western Finland. The difference should not be a problem since all the other residences were quite evenly distributed.
Table 1. Demographic characteristics of the respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>3397</td>
<td>60,8%</td>
</tr>
<tr>
<td>Male</td>
<td>2193</td>
<td>39,2%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24yo</td>
<td>205</td>
<td>3,7%</td>
</tr>
<tr>
<td>25-34yo</td>
<td>545</td>
<td>9,7%</td>
</tr>
<tr>
<td>35-44yo</td>
<td>869</td>
<td>15,5%</td>
</tr>
<tr>
<td>45-54yo</td>
<td>1533</td>
<td>27,4%</td>
</tr>
<tr>
<td>55-64yo</td>
<td>1469</td>
<td>26,3%</td>
</tr>
<tr>
<td>Over 64yo</td>
<td>969</td>
<td>17,3%</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Helsinki</td>
<td>838</td>
<td>15,0%</td>
</tr>
<tr>
<td>Uusimaa</td>
<td>632</td>
<td>11,3%</td>
</tr>
<tr>
<td>Southern Finland</td>
<td>988</td>
<td>17,7%</td>
</tr>
<tr>
<td>Northern Finland</td>
<td>622</td>
<td>11,1%</td>
</tr>
<tr>
<td>Eastern Finland</td>
<td>853</td>
<td>15,3%</td>
</tr>
<tr>
<td>Western Finland</td>
<td>1657</td>
<td>29,6%</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>264</td>
<td>4,7%</td>
</tr>
<tr>
<td>Working</td>
<td>2600</td>
<td>46,5%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>959</td>
<td>17,2%</td>
</tr>
<tr>
<td>Retiree</td>
<td>1767</td>
<td>31,6%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary School</td>
<td>681</td>
<td>12,2%</td>
</tr>
<tr>
<td>Vocational School</td>
<td>1940</td>
<td>34,7%</td>
</tr>
<tr>
<td>High school</td>
<td>492</td>
<td>8,8%</td>
</tr>
<tr>
<td>Polytechnic degree</td>
<td>1153</td>
<td>20,6%</td>
</tr>
<tr>
<td>University degree</td>
<td>657</td>
<td>11,8%</td>
</tr>
<tr>
<td>Other</td>
<td>667</td>
<td>11,9%</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20.000€</td>
<td>1608</td>
<td>28,8%</td>
</tr>
<tr>
<td>20.000-35.000€</td>
<td>1794</td>
<td>32,1%</td>
</tr>
<tr>
<td>35.000-50.000€</td>
<td>895</td>
<td>16,0%</td>
</tr>
<tr>
<td>50.000-85.000€</td>
<td>379</td>
<td>6,8%</td>
</tr>
<tr>
<td>85.000-100.000€</td>
<td>36</td>
<td>0,6%</td>
</tr>
<tr>
<td>&gt; 100.000€</td>
<td>31</td>
<td>0,6%</td>
</tr>
<tr>
<td>Don't want to answer</td>
<td>847</td>
<td>15,2%</td>
</tr>
<tr>
<td><strong>Size of Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 ppl</td>
<td>1471</td>
<td>26,3%</td>
</tr>
<tr>
<td>2 ppl</td>
<td>2495</td>
<td>44,6%</td>
</tr>
<tr>
<td>3 ppl</td>
<td>749</td>
<td>13,4%</td>
</tr>
<tr>
<td>4 ppl</td>
<td>559</td>
<td>10,0%</td>
</tr>
<tr>
<td>5 ppl</td>
<td>316</td>
<td>5,7%</td>
</tr>
</tbody>
</table>

a) n=5590
3.4.2. Purchase history data

After the data reduction, the final survey dataset of 5590 responses was combined with Tokmanni’s online store purchase history data from the past year (Jan-Sep 2015). The two datasets were linked together based on the respondents’ email addresses. 806 survey respondents had purchased something from Tokmanni’s online store during the past year.

The demographic characteristics of the respondents who had purchased something were really similar to the characteristics of the whole data set. 52% of the respondents were female and 48% were male. Again, the biggest respondent cohorts were the 45-54-years-old (29%) and the 55-64-year-old (28%). Additionally, a clear majority was from western Finland (30%) and most of the respondents were either working (40%) or retirees (39%). In addition, a majority had a lower educational degree and relatively low yearly income. Further, clear majority were again either single (28%) or lived with one other person (45%). Hence, the sample represents well Tokmanni’s core customer as well as discussed earlier.

We can conclude that the respondents who have purchased something from Tokmanni’s online store during the past year represent a good and relevant sample of the whole data set, and hence, exemplify a similar demographic distribution as the Tokmanni’s core customer.
Table 2. Demographic characteristics of the respondents who had purchased from Tokmanni’s online store

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>415</td>
<td>51.5%</td>
</tr>
<tr>
<td>Male</td>
<td>391</td>
<td>48.5%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24yo</td>
<td>20</td>
<td>2.5%</td>
</tr>
<tr>
<td>25-34yo</td>
<td>69</td>
<td>8.6%</td>
</tr>
<tr>
<td>35-44yo</td>
<td>121</td>
<td>15.0%</td>
</tr>
<tr>
<td>45-54yo</td>
<td>230</td>
<td>28.5%</td>
</tr>
<tr>
<td>55-64yo</td>
<td>223</td>
<td>27.7%</td>
</tr>
<tr>
<td>Over 64yo</td>
<td>143</td>
<td>17.7%</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Helsinki</td>
<td>117</td>
<td>14.5%</td>
</tr>
<tr>
<td>Uusimaa</td>
<td>90</td>
<td>11.2%</td>
</tr>
<tr>
<td>Southern Finland</td>
<td>117</td>
<td>14.5%</td>
</tr>
<tr>
<td>Northern Finland</td>
<td>104</td>
<td>12.9%</td>
</tr>
<tr>
<td>Eastern Finland</td>
<td>137</td>
<td>17.0%</td>
</tr>
<tr>
<td>Western Finland</td>
<td>241</td>
<td>29.9%</td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>29</td>
<td>3.6%</td>
</tr>
<tr>
<td>Working</td>
<td>326</td>
<td>40.4%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>140</td>
<td>17.4%</td>
</tr>
<tr>
<td>Retiree</td>
<td>311</td>
<td>38.6%</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary School</td>
<td>104</td>
<td>12.9%</td>
</tr>
<tr>
<td>Vocational School</td>
<td>293</td>
<td>36.4%</td>
</tr>
<tr>
<td>High school</td>
<td>69</td>
<td>8.6%</td>
</tr>
<tr>
<td>Polytechnic degree</td>
<td>154</td>
<td>19.1%</td>
</tr>
<tr>
<td>University degree</td>
<td>98</td>
<td>12.2%</td>
</tr>
<tr>
<td>Other</td>
<td>88</td>
<td>10.9%</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20.000€</td>
<td>239</td>
<td>29.7%</td>
</tr>
<tr>
<td>20.000-35.000€</td>
<td>235</td>
<td>29.2%</td>
</tr>
<tr>
<td>35.000-50.000€</td>
<td>121</td>
<td>15.0%</td>
</tr>
<tr>
<td>50.000-85.000€</td>
<td>58</td>
<td>7.2%</td>
</tr>
<tr>
<td>85.000-100.000€</td>
<td>4</td>
<td>0.5%</td>
</tr>
<tr>
<td>&gt; 100.000€</td>
<td>6</td>
<td>0.7%</td>
</tr>
<tr>
<td>Don't want to answer</td>
<td>143</td>
<td>17.7%</td>
</tr>
<tr>
<td><strong>Size of Household</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 ppl</td>
<td>226</td>
<td>28%</td>
</tr>
<tr>
<td>2 ppl</td>
<td>362</td>
<td>44.9%</td>
</tr>
<tr>
<td>3 ppl</td>
<td>92</td>
<td>11.4%</td>
</tr>
<tr>
<td>4 ppl</td>
<td>76</td>
<td>9.4%</td>
</tr>
<tr>
<td>5 ppl</td>
<td>50</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

a) n=806
4. Results and Analysis

The following chapter begins by introducing the results of the confirmatory factor analysis for the models after which the different regression analyses are introduced. Furthermore, the results of the logistic and multiple regression analyses are presented, and lastly, the validity and reliability of the models are discussed.

4.1 Confirmatory Factor Analysis (CFA)

In total three different scales were used in order to study respondents’ shopping orientation, motivations to shop online, and online store attribute valuations. Amos 23 was used to test the confirmatory factor model of the three scales and evaluate the measurement data on the sample of 5590 cases.

All the scales with the original construct items were included in the model at the same time. Six items did not exceed the threshold of .60 (Fornell & Larcker, 1981) and were, therefore, deleted from the model. However, the item reduction was performed in a way that the nature of the original constructs conserved (Hair et al., 2010). Two items were deleted from the shopping orientation scale, one from the economical orientation and the other from the apathetic orientation construct. Deleted items were “I tend to buy products on sale” (loading .50) and “There are very few things I would enjoy shopping for” (loading .26).

Further, three items were deleted from the shopping motivation online scale, all of them from the convenience construct. Deleted items were “Avoiding regular shopping” (loading .58), “Avoiding having to deal with salespeople” (loading .36) and “Having products delivered right to my home” (loading 0.51). Which indicates, that the customers of the case company do not necessarily consider these attributes to be part of the convenience of shopping online as much as the other variables. Having to delete the two latter items suggest that the respondents considered the omni-channel shopping experience important. They do not shop online to avoid the brick and mortar store, instead the shopping experience is integrating both online and offline stores.

Finally, one item was deleted from the online store attribute valuation scale. The deleted item was “Ease of contacting online store personnel” (loading .57). This indicates the importance of omni-
channel experience – most likely the customers are multichannel shoppers and can trust the brick and mortar personnel to answer their questions if needed, and therefore, it is not entirely necessary to be able to contact the online store personnel separately. After deleting these six items, all items exceeded the threshold of .60.

However, the model fit indicators did not reach their desired threshold levels – the comparative fit index (CFI) showed a poor fit with an index of .894, the acceptable level being > .93 (Byrne, 1994), and the goodness of fit index (GFI) was only .861 being below the threshold of > .90 (Byrne, 1994). In addition, the composite reliability and convergent levels for one construct were below the threshold levels. The square root of the average variance extracted (AVE) for product variety construct was less than one the absolute value of the correlations with another factor, furthermore, the AVE for product variety was less than the maximum shared variance (MSV). Therefore, the whole product variety construct was deleted from the model. The construct was highly correlated with the e-store essentials construct, which indicates that the respondents consider product variety as an essential of the online store. After deleting the product variety construct, all items load on the construct they are intended to and exceeded the threshold of .60 (see Table 3 below).

After the necessary item and construct reduction, the data fit the research model quite well; even though the comparative fit index (CFI) showed a fit with an index of .924, the acceptable level being > .93 (Byrne, 1994), the normed fit index (NFI) showed a good fit with value of .920 (threshold > .90, Byrne, 1994). Additionally, the goodness of fit index (GFI) was .903 and root-mean square error of approximation (RMSEA) 0.050 – both exceeding the threshold levels (> .90 Byrne, 1994 and < .08 Hu & Bentler, 1998).

Thereafter, the composite reliability (CR) and average variance extracted (AVE) were investigated. All of the constructs were above the recommended values of .70 and .50 (Fornell & Lacker, 1981) expect the apathetic construct in the shopping orientation scale. The CR and AVE of apathetic construct remained slightly below the recommended values (see Table 3 below). Thus, the Fornell and Larcker (1981) procedure was used to prove the discriminant validity of the model. The square root of AVE for every construct was compared with the absolute value of the standardized correlation of the given construct with all other constructs in the analysis. All of the discriminant validity numbers were satisfactory and therefore we can conclude the validity of the model. Summary of the model statistics are presented in Table 4.
Table. 3 Measurement scales, loadings, composite reliability, and convergent validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>CR</th>
<th>AVE</th>
<th>Loadings</th>
<th>Items</th>
<th>Based on</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shopping orientation scale</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economical shopper</td>
<td>0,812</td>
<td>0,593</td>
<td>0,67</td>
<td>I tend to examine product attributes carefully when making a purchase decision</td>
<td>Choi &amp; Park (2006)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,83</td>
<td>I tend to compare prices</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,79</td>
<td>I search for information a lot to find the best price</td>
<td></td>
</tr>
<tr>
<td>Recreational shopper</td>
<td>0,877</td>
<td>0,705</td>
<td>0,89</td>
<td>I often like to shop even when I do not need anything</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,84</td>
<td>For me, shopping is a form of recreation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,79</td>
<td>I often make a purchase without preplan</td>
<td></td>
</tr>
<tr>
<td>Apathetic shopper</td>
<td>0,606</td>
<td>0,436</td>
<td>0,71</td>
<td>I shop as quickly as I can to get it over with</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,61</td>
<td>I do not go shopping until I absolutely have to do it</td>
<td></td>
</tr>
<tr>
<td><strong>Motivation scale</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td>0,921</td>
<td>0,597</td>
<td>0,60</td>
<td>Shopping from my home</td>
<td>Ganesh et al. (2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,69</td>
<td>Shopping any time of day or night</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,83</td>
<td>Avoiding standing in line</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,79</td>
<td>One-stop shopping</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,87</td>
<td>Avoiding crowds</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,84</td>
<td>Completing my shopping tasks quickly</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,80</td>
<td>Not having to travel from store to store</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Finding exactly what I want in the least amount of time</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role enactment</td>
<td>0,828</td>
<td>0,617</td>
<td>0,85</td>
<td>Looking for great deals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,78</td>
<td>Hunting for and finding a real bargain</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,73</td>
<td>Comparison-shopping to find the best product for my money</td>
<td></td>
</tr>
<tr>
<td>Avant-gardism</td>
<td>0,822</td>
<td>0,606</td>
<td>0,76</td>
<td>Keeping up with new trends</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Being one of the first to have the latest in new fashions or new products</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,77</td>
<td>Being one of the first to have the latest in new fashions or new products</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,81</td>
<td>Keeping up with the newest fashions</td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td>0,916</td>
<td>0,784</td>
<td>0,86</td>
<td>Chatting with other consumers who share my own interests</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Finding other consumers who are interested in the same product as I am</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,93</td>
<td>Interacting with other Web shoppers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized services</td>
<td>0,763</td>
<td>0,521</td>
<td>0,61</td>
<td>Being notified of new products that interest me</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,81</td>
<td>Being alerted to special deals or sales</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Having emails sent to me about new products,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0,74</td>
<td>upcoming sales events or both</td>
<td></td>
</tr>
</tbody>
</table>
### Online store attributes scale

<table>
<thead>
<tr>
<th>Attribute</th>
<th>E-store Essentials</th>
<th>Offline Presence</th>
<th>Price Orientation</th>
<th>Website Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety/security of site</td>
<td>0.71</td>
<td>0.751</td>
<td>0.891</td>
<td>0.872</td>
</tr>
<tr>
<td>Confirmation of order/delivery</td>
<td>0.77</td>
<td>0.606</td>
<td>0.731</td>
<td>0.694</td>
</tr>
<tr>
<td>Ease of ordering</td>
<td>0.77</td>
<td>0.66</td>
<td>0.83</td>
<td>0.80</td>
</tr>
<tr>
<td>Ease of payment</td>
<td>0.77</td>
<td>0.88</td>
<td>0.86</td>
<td>0.87</td>
</tr>
<tr>
<td>Ease of returning merchandise</td>
<td>0.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of information</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-cost shipping and delivery charges</td>
<td>0.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical store for website located nearby</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to return purchases to a physical store</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special deals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notices about sales or new products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of sales or special deals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attractiveness of website</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutting-edge site</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-designed website</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All the scales were measured on a 7-point scale, ranging from 1=strongly disagree to 7=strongly agree*

**All the scales were measured on a 7-point scale, ranging from 1=provides me no satisfaction at all to 7=provides me a great deal of satisfaction**

***All the scales were measured on a 7-point scale, ranging from 1=not at all important to 7=extremely important***
Table 4. Measurement information and correlation matrixes

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>SD</th>
<th>MSV</th>
<th>ASV</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
<th>11.</th>
<th>12.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economical</td>
<td>5.87</td>
<td>.99</td>
<td>0.23</td>
<td>0.05</td>
<td>0.770</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Price orientation</td>
<td>5.94</td>
<td>1.06</td>
<td>0.41</td>
<td>0.17</td>
<td>0.257</td>
<td>0.855</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Attractiveness</td>
<td>5.56</td>
<td>1.11</td>
<td>0.38</td>
<td>0.14</td>
<td>0.215</td>
<td>0.597</td>
<td>0.833</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Offline presence</td>
<td>5.21</td>
<td>1.47</td>
<td>0.21</td>
<td>0.06</td>
<td>0.154</td>
<td>0.458</td>
<td>0.353</td>
<td>0.779</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. E-store essentials</td>
<td>6.25</td>
<td>0.83</td>
<td>0.38</td>
<td>0.12</td>
<td>0.307</td>
<td>0.561</td>
<td>0.616</td>
<td>0.347</td>
<td>0.734</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Personalized services</td>
<td>5.07</td>
<td>1.21</td>
<td>0.43</td>
<td>0.15</td>
<td>0.278</td>
<td>0.641</td>
<td>0.421</td>
<td>0.219</td>
<td>0.312</td>
<td>0.722</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7. Affiliation</td>
<td>2.37</td>
<td>1.38</td>
<td>0.41</td>
<td>0.06</td>
<td>0.053</td>
<td>0.124</td>
<td>0.179</td>
<td>0.140</td>
<td>-0.005</td>
<td>0.272</td>
<td>0.885</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Avant-gardism</td>
<td>3.38</td>
<td>1.47</td>
<td>0.41</td>
<td>0.11</td>
<td>0.129</td>
<td>0.247</td>
<td>0.355</td>
<td>0.156</td>
<td>0.085</td>
<td>0.447</td>
<td>0.644</td>
<td>0.778</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Role Enactment</td>
<td>5.93</td>
<td>1.00</td>
<td>0.43</td>
<td>0.16</td>
<td>0.475</td>
<td>0.532</td>
<td>0.379</td>
<td>0.201</td>
<td>0.437</td>
<td>0.657</td>
<td>0.137</td>
<td>0.333</td>
<td>0.786</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Convenience</td>
<td>5.25</td>
<td>1.32</td>
<td>0.28</td>
<td>0.09</td>
<td>0.153</td>
<td>0.276</td>
<td>0.329</td>
<td>0.102</td>
<td>0.364</td>
<td>0.366</td>
<td>0.220</td>
<td>0.360</td>
<td>0.529</td>
<td>0.773</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Apathetic</td>
<td>3.43</td>
<td>1.42</td>
<td>0.21</td>
<td>0.03</td>
<td>0.025</td>
<td>-0.118</td>
<td>-0.131</td>
<td>0.032</td>
<td>-0.079</td>
<td>-0.138</td>
<td>-0.012</td>
<td>-0.138</td>
<td>-0.077</td>
<td>0.054</td>
<td>0.660</td>
<td></td>
</tr>
<tr>
<td>12. Recreational</td>
<td>3.06</td>
<td>1.61</td>
<td>0.21</td>
<td>0.03</td>
<td>-0.100</td>
<td>0.131</td>
<td>0.138</td>
<td>-0.016</td>
<td>0.082</td>
<td>0.152</td>
<td>0.147</td>
<td>0.227</td>
<td>0.139</td>
<td>0.091</td>
<td>-0.456</td>
<td>0.839</td>
</tr>
</tbody>
</table>

a. n=5590
4.2. Regression Analysis

After the first model assessment for the proposed model, two different types of regression analysis were done to test relationships between dependent and independent variables. First, logistic regression analysis tests if respondents’ previous purchase behavior online and certain demographic attributes as well as shopping orientation, motivation to shop online, and online store attribute valuations can explain if the respondent has purchased something from case company’s online store during the past year. Further, multiple regression analysis tests the effects of the same independent variables on actual purchase behavior. All the dependent, independent, and control variables are listed on the table 5 below.

Table 5. Listing of different regression analyses and variables

<table>
<thead>
<tr>
<th>Type of analysis:</th>
<th>Dependent variables:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic Regression</td>
<td>Purchase behavior</td>
<td>If the respondent has purchased something from case company's online store during the past year (yes/no)</td>
</tr>
<tr>
<td>Multiple Regression 1</td>
<td>Total purchase amount</td>
<td>The total purchase amount during the past year</td>
</tr>
<tr>
<td>Multiple Regression 2</td>
<td>Average purchase amount</td>
<td>Average purchase amount per transaction=Total purchase amount/number of purchase transactions</td>
</tr>
<tr>
<td>Multiple Regression 3</td>
<td>Total amount of products</td>
<td>How many products the respondent has purchased in total during the past year</td>
</tr>
</tbody>
</table>

**Control variables:**

<table>
<thead>
<tr>
<th>Both Logistic and Multiple Regression</th>
<th>Gender</th>
<th>Male and Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>18-24yo, 25-34yo, 35-44yo, 45-54yo, 55-64yo and over 64yo</td>
</tr>
<tr>
<td></td>
<td>Occupation</td>
<td>Student, working, unemployed, retiree</td>
</tr>
<tr>
<td></td>
<td>Previous purchase behavior online in general</td>
<td>How often the respondent buys something from online stores in general: at least once a week, approx. Once a month, a few times a year, approx. Once a year, Never bought online</td>
</tr>
</tbody>
</table>

**Independent variables:**

| Both Logistic and Multiple Regression | Shopping orientation scale | Including economical, recreational and apathetic orientations |
|---------------------------------------| Motivation scale            | Including convenience, role enactment, avant-gardism, affiliation and personalized services |
|                                       | Online store attribute valuation scale | Including e-store essentials, offline presence, price orientation and attractiveness |
4.3 Logistic Regression

Logistic regression was performed to ascertain the effects of gender, age, occupation and previous purchase behavior online in general, as well as, shopping orientation, motivation to shop online, and online store attribute valuation on the likelihood that participants had purchased something from Tokmanni’s online store during the past year. The logistic regression model was statistically significant $\chi^2(25) = 236.549, p = .0000$. The model explained 7.4% (Nagelkerke $R^2$) of the variance in purchase behavior and correctly classified 85.6% of the cases. Sensitivity was 2% and specificity was 100%. Of the 16 predictor variables 10 were statistically significant: gender, age, occupation, previous purchase behavior online, apathetic orientation, convenience, avant-gardism, offline presence, price orientation, and online store attractiveness (see Table 6 below).

Females had 1.67 times higher odds to exhibit purchase transactions than males. Increasing age did not increase the likelihood of making a purchase, however, 45-54 years old and 55-64 years old had slightly higher odds (1.34 and 1.26) to exhibit purchase transactions than over 64 years old. There was no statistically significant difference in the likelihood of 18-44 years old of exhibiting a purchase transaction compared with the reference groups of over 64 years old. Further, retirees had 1.77 higher odds to exhibit purchase transactions than students.

The more often the respondents purchased from other online stores the higher the odds were to exhibit purchase transactions at Tokmanni’s online store as well. If the respondent purchased at least once a week from other online store, the likelihood of exhibiting purchase transactions in the case company was 6.6 higher than compared with those who had never bought anything online.

The more apathetic oriented shopper the respondent was, the lower the odds were for exhibiting purchase transactions online. Thus, the higher the motivation to shop online for the convenience the higher the odds were for the respondent to exhibit purchase transactions (1.30), and the higher the motivation to shop online for the avant-gardism the lower the odds were to exhibit purchase transactions (0.93). Lastly, the more the respondent valued the offline presence of the online store and price orientation the higher the odds were for exhibiting purchase transactions (1.07, 1.18) and the more the attractiveness of the website was valued the lower the odds were for exhibiting purchase transactions (0.86).
According to the Nagelkerke $R^2$ change from the model 1 to the model 2, the explanatory power of the model increased only by 0.1% by adding the shopping orientation construct into the model. Whereas the online shopping motivation construct increased the explanatory power of the model by 2.2%, and lastly the online store attribute valuation construct by 0.7%. Hence, the shopping motivation construct explained the purchase intention the most. In total the model explained 7.4% of the variance in purchase behavior.

Table 6. Logistic Regression with purchase behavior as the dependent variable
<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Exp (B)</td>
<td>B</td>
</tr>
<tr>
<td>Gender (Women)</td>
<td>.394</td>
<td>.079</td>
<td><strong>1,483</strong>*</td>
<td>.413</td>
</tr>
<tr>
<td>Age (18-24yo)</td>
<td>.012</td>
<td>.295</td>
<td>1.012</td>
<td>-.057</td>
</tr>
<tr>
<td>Age (25-34yo)</td>
<td>.259</td>
<td>.195</td>
<td>1.296</td>
<td>.198</td>
</tr>
<tr>
<td>Age (35-44yo)</td>
<td>.335</td>
<td>.170</td>
<td><strong>1,398</strong></td>
<td>.297</td>
</tr>
<tr>
<td>Age (45-54yo)</td>
<td>.443</td>
<td>.149</td>
<td><strong>1,557</strong>*</td>
<td>.421</td>
</tr>
<tr>
<td>Age (55-64yo)</td>
<td>.324</td>
<td>.130</td>
<td><strong>1,382</strong></td>
<td>.312</td>
</tr>
<tr>
<td>Occupation (Working)</td>
<td>-.033</td>
<td>.226</td>
<td>.967</td>
<td>-.030</td>
</tr>
<tr>
<td>Occupation (Unemployed)</td>
<td>.224</td>
<td>.233</td>
<td>1.252</td>
<td>.225</td>
</tr>
<tr>
<td>Occupation (Retiree)</td>
<td>.610</td>
<td>.244</td>
<td><strong>1,841</strong></td>
<td>.609</td>
</tr>
<tr>
<td>Previous online purchase 1</td>
<td>2.151</td>
<td>.448</td>
<td><strong>8,590</strong>*</td>
<td>2.086</td>
</tr>
<tr>
<td>Previous online purchase 2</td>
<td>1.886</td>
<td>.424</td>
<td><strong>6,594</strong>*</td>
<td>1.852</td>
</tr>
<tr>
<td>Previous online purchase 3</td>
<td>1.682</td>
<td>.420</td>
<td><strong>5,378</strong>*</td>
<td>1.667</td>
</tr>
<tr>
<td>Previous online purchase 4</td>
<td>1.086</td>
<td>.432</td>
<td><strong>2,962</strong></td>
<td>1.080</td>
</tr>
<tr>
<td>Economical</td>
<td>.062</td>
<td>.040</td>
<td>1.064</td>
<td>-.019</td>
</tr>
<tr>
<td>Recreational</td>
<td>.023</td>
<td>.027</td>
<td>1.023</td>
<td>.015</td>
</tr>
<tr>
<td>Apathetic</td>
<td>-.034</td>
<td>.029</td>
<td>.967</td>
<td>-.050</td>
</tr>
<tr>
<td>Convenience</td>
<td>.246</td>
<td>.041</td>
<td><strong>1,279</strong>*</td>
<td>.264</td>
</tr>
<tr>
<td>Role enactment</td>
<td>.090</td>
<td>.057</td>
<td>1.094</td>
<td>.049</td>
</tr>
<tr>
<td>Avant-gardism</td>
<td>-.094</td>
<td>.035</td>
<td><strong>.910</strong>*</td>
<td>-.077</td>
</tr>
<tr>
<td>Personalized services</td>
<td>.071</td>
<td>.041</td>
<td><strong>1,074</strong></td>
<td>.037</td>
</tr>
<tr>
<td>Essentials</td>
<td>-.002</td>
<td>.069</td>
<td>.998</td>
<td>-.064</td>
</tr>
<tr>
<td>Offline presence</td>
<td>.163</td>
<td>.057</td>
<td><strong>1,177</strong>*</td>
<td>.000</td>
</tr>
<tr>
<td>Price orientation</td>
<td>-.148</td>
<td>.047</td>
<td><strong>.863</strong>*</td>
<td>-.148</td>
</tr>
</tbody>
</table>

Chi-square                        | 138,738  | 143,516  | 215,545  | 236,549  |
Model sig.                        | .000     | .000     | .000     | .000     |
Nagelkerke R Square               | .044     | .045     | .067     | .074     |

a) Standardized regression coefficients are shown *p<0.10 **p<0.05 and ***p<0.01
b) n=5590
c) Gender is for females compared to males.
d) Age is compared to over 64yo.
e) Occupation is compared to student.
f) Previous online purchase is compared to never bought online, and they are 1=at least once a week, 2=approx. Once a month, 3=a few times a year, 4=approx. Once a year
4.4 Multiple Regression Analysis

The effects of the same independent variables were tested as previously on the following three different dependent variables separately; total purchase amount, average purchase amount, and total amount of products purchased during the past year. Hence, three separate multiple regression analyses were conducted. All the analyses are performed hierarchically by adding variables to each model step by step. First model contains only the control variables, whereas model 2 includes also the shopping orientation scale, model 3 the motivation scale and lastly, model 4 the online store attribute valuation scale, and thus, being the full model including all of the variables. A logarithmical transformation was carried out for each of the dependent variables to normalize the variables.

The results of the multiple regression analysis 1 show that age, recreational shopping orientation, convenience, and offline presence of the online store statistically significantly predicted the total purchase amount during the past year. Age appeared to be significant control variable, positively predicting the total purchase amount per year. Recreational shopping orientation and the importance of offline presence seem to decrease when the total purchase amount increases. Whereas, the motivation to shop online due to its convenience increases, when the total purchase amount per year increases. According to the $R^2$ change from model 1 to model 2, adding the shopping orientation construct increases the explanatory power of the model only by 0.9 %, whereas adding the online shopping motivation construct increases the explanatory power of the model by 3.4%. Lastly, adding the online store attribute scale increases the explanatory power of the model by 1.1%. Hence, the online shopping motivation construct explains the total purchase amount the most. The whole model explains 6.3% of the variance in total purchase amount (see Table 7 below).
Table 7. Multiple Regression Analysis with total purchase amount as the dependent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.005</td>
<td>.000</td>
<td>.032</td>
<td>.049</td>
</tr>
<tr>
<td>Age</td>
<td>.109**</td>
<td>.078*</td>
<td>.079*</td>
<td>.083*</td>
</tr>
<tr>
<td>Occupation</td>
<td>-.037</td>
<td>-.025</td>
<td>-.028</td>
<td>-.023</td>
</tr>
<tr>
<td>Previous online purchase</td>
<td>-.055</td>
<td>-.070*</td>
<td>-.029</td>
<td>-.010</td>
</tr>
<tr>
<td>Economical</td>
<td>-.031</td>
<td>-.048</td>
<td>-.056</td>
<td></td>
</tr>
<tr>
<td>Recreational</td>
<td>-.096**</td>
<td>-.086**</td>
<td>-.087**</td>
<td></td>
</tr>
<tr>
<td>Apathetic</td>
<td>-.046</td>
<td>-.054</td>
<td>-.049</td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td></td>
<td>.221***</td>
<td>.212***</td>
<td></td>
</tr>
<tr>
<td>Role enactment</td>
<td>-.033</td>
<td>-.045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avant-gardism</td>
<td>-.042</td>
<td>-.034</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td>.018</td>
<td>.024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized services</td>
<td>-.033</td>
<td>-.047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essentials</td>
<td>.039</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offline presence</td>
<td></td>
<td>-.112***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price orientation</td>
<td></td>
<td>.061</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attractiveness</td>
<td></td>
<td>.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R²                          | .009    | .018    | .052    | .063    |
Adj. R²                     | .004    | .009    | .038    | .044    |
F-value change              | 1.897   | 2.276*  | 5.740***| 2.285** |

a) Standardized regression coefficients are shown *p<0.10 **p<0.05 and ***p<0.01
b) n=806

The results of the multiple regression analysis 2 suggest that age, occupation, recreational shopping orientation, convenience, and offline presence of the online store statistically significantly predicted the average purchase amount per transaction. Age and occupation appear to be significant control variables. Again, recreational shopping orientation and the importance of offline presence seem to decrease when the average purchase amount per transaction increases. Whereas, again, the motivation to shop online due to its convenience increases when the total purchase amount per year increases. Now according to the R² change from model 1 to model 2, adding the shopping orientation construct increases the explanatory power of the model by 1%, whereas the change from model 2 to 3 when adding the online shopping motivation construct is 1.6% and lastly, when adding the online store attribute construct the explanatory power of the model increases only by
0,7%. Again the online shopping motivation construct explains the average purchase amount the most. The whole model explains 5,4% of the variance in average purchase amount (see table 8 below).

Table 8. Multiple Regression Analysis with average purchase amount per transaction as the dependent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.023</td>
<td>.018</td>
<td>.035</td>
<td>.044</td>
</tr>
<tr>
<td>Age</td>
<td>.176***</td>
<td>.144***</td>
<td>.140***</td>
<td>.142***</td>
</tr>
<tr>
<td>Occupation</td>
<td>-.119***</td>
<td>-.106**</td>
<td>-.108**</td>
<td>-.105**</td>
</tr>
<tr>
<td>Previous online purchase</td>
<td>-.024</td>
<td>-.040</td>
<td>-.013</td>
<td>.004</td>
</tr>
<tr>
<td>Economical</td>
<td>-.033</td>
<td>-.023</td>
<td>-.026</td>
<td></td>
</tr>
<tr>
<td>Recreational</td>
<td>-.101***</td>
<td>-.092**</td>
<td>-.091**</td>
<td></td>
</tr>
<tr>
<td>Apathetic</td>
<td>-.053</td>
<td>-.062*</td>
<td>-.059</td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td></td>
<td>.149***</td>
<td>.146***</td>
<td></td>
</tr>
<tr>
<td>Role enactment</td>
<td>-.076</td>
<td>-.075</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avant-gardism</td>
<td>.000</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td>-.010</td>
<td>-.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized services</td>
<td>-.022</td>
<td>-.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essentials</td>
<td></td>
<td>.027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offline presence</td>
<td></td>
<td>.091**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price orientation</td>
<td></td>
<td>.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attractiveness</td>
<td></td>
<td>-.014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.021</td>
<td>.031</td>
<td>.047</td>
<td>.054</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>.017</td>
<td>.023</td>
<td>.033</td>
<td>.035</td>
</tr>
<tr>
<td>F-value change</td>
<td>4.394***</td>
<td>2.665**</td>
<td>2.683**</td>
<td>1.470</td>
</tr>
</tbody>
</table>

a) Standardized regression coefficients are shown *p<0.10 **p<0.05 and ***p<0.01
b) n=806

The results of the multiple regression analysis 3 suggest that gender, age, occupation, previous online purchase behavior, as well as, economical shopping orientation, convenience, online store essentials, and offline presence of the online store statistically significantly predicted the total amount of purchased products per year. Gender, age, occupation, and previous online purchases appear to be significant control variables. Economical shopping orientation and the importance of
offline presence seem to decrease when the total amount of products purchased per year increases. Whereas the motivation to shop online due to its convenience and the importance of online store essentials increase when the total amount of products purchased per year increases. According to the $R^2$ change from model 1 to model 2, the explanatory power of the model changes only by 0,4%, further, by adding the online shopping motivation construct it increases by 3,2%. Lastly, adding the online store attribute valuation construct increases the explanatory power of the model by 2,2%. Again the online shopping motivation construct explains the total amount of products purchased per year the most in the model. The whole model explains 11,5% of the variance in total amount of products purchased per year (see table 9 below).

Table 9. Multiple Regression Analysis with total amount of products purchased per year as the dependent variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-.181***</td>
<td>-.187***</td>
<td>-.150***</td>
<td>-.122***</td>
</tr>
<tr>
<td>Age</td>
<td>-.086*</td>
<td>-.109**</td>
<td>-.105**</td>
<td>-.098**</td>
</tr>
<tr>
<td>Occupation</td>
<td>.083*</td>
<td>.091**</td>
<td>.087**</td>
<td>.095**</td>
</tr>
<tr>
<td>Previous online purchase</td>
<td>-.121***</td>
<td>-.133***</td>
<td>-.095***</td>
<td>-.071*</td>
</tr>
<tr>
<td>Economical</td>
<td>-.034</td>
<td>-.077**</td>
<td>-.094**</td>
<td></td>
</tr>
<tr>
<td>Recreational</td>
<td>-.059</td>
<td>-.053</td>
<td>-.052</td>
<td></td>
</tr>
<tr>
<td>Apathetic</td>
<td>-.005</td>
<td>-.006</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td></td>
<td></td>
<td>.193***</td>
<td>.179***</td>
</tr>
<tr>
<td>Role enactment</td>
<td>.027</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avant-gardism</td>
<td>-.058</td>
<td>-.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td>.014</td>
<td>.022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalized services</td>
<td>-.008</td>
<td>-.023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Essentials</td>
<td></td>
<td></td>
<td>.102**</td>
<td></td>
</tr>
<tr>
<td>Offline presence</td>
<td></td>
<td></td>
<td>-.143***</td>
<td></td>
</tr>
<tr>
<td>Price orientation</td>
<td>.080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attractiveness</td>
<td>-.046</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>.057</td>
<td>.061</td>
<td>.093</td>
<td>.115</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>.053</td>
<td>.053</td>
<td>.079</td>
<td>.097</td>
</tr>
<tr>
<td>F-value change</td>
<td>12.180***</td>
<td>1.010</td>
<td>5.556***</td>
<td>4.971***</td>
</tr>
</tbody>
</table>

a) Standardized regression coefficients are shown *p<0.10 **p<0.05 and ***p<0.01
b) n=806
These results of the four different regression analyses give support to the idea that combining customer psychographic studies to customer-level purchase data does indeed give more accurate and informative data than for instance Google Analytics, and thus, support online store improvement and the development process to better serve customer needs.

4.5 Validity and reliability

Various diagnostic tools were used to ensure that all the validity and reliability assumptions and requirements of the models were met. All the four different regression analyses were treated separately. All of the tables and graphs related to the validity and reliability analyses can be found in the appendices.

4.5.1 Logistic regression

Logistic regression does not make the same assumptions regarding linearity, normality, homoscedasticity, and measurement level, as linear regression does. However, there are a few assumptions which should be taken into account; the dependent variable has to be dichotomous, the independent variables have to be either continuous or categorical and they have to be linearly related to the logit of the dependent variable. Lastly, multicollinearity should not occur. Further, there are two different approaches to evaluate the logistic regression model – measures of predictive power and goodness of fit tests. (Menard, 2002)

The first two assumptions are taken into account already in the data preparation phase and diagnostics for multicollinearity were tested before the analysis. All the variance inflation factors (VIF) and tolerance levels exceed the recommended values, which should be for VIF less than 10 and for tolerance more than .10 (Cohen et al., 2013). Additionally, the condition indices (CI) and variance decompositions values were reviewed in order to deducing multicollinearity. Even though some high CI levels occurred (recommended value <30, Hair et al., 2010), none of the variables exhibited above the recommended 90 percent variance proportions (see table in Appendices 8.2.1). Therefore we can conclude that the inherent multicollinearity will not affect the model negatively.
Next, the Box-Tidwell procedure was used to test if the continuous independent variables were linearly related to the logit of the dependent variable (Menard, 2002). As the author describes the Box-Tidwell procedure, an interaction term between the existing continuous independent variables and their natural log transformations are added to the equation. If the interaction term is statistically significant, there is evidence for nonlinearity in the relationship between the original independent variable and the logit of the dependent variable. None of the interaction terms were statistically significant (p< .05) and therefore we can conclude that all the assumptions for logistic regression are met.

After confirming that all the assumptions are met, the predictive power of the model and goodness of fit test are reviewed. The model was statistically significant (p< .005) and the Hosmer and Lemeshow goodness of fit test was not significant (p= .991) supporting that the model is not a poor fit. Nagelkerke $R^2$ was .074, meaning that the model explained 7.4% of the variation in the dependent variable.

### 4.5.2 Multiple Linear Regression

For multiple linear regression several assumptions and requirements need to be met in order to be able to verify the reliability and validity of the models. These assumptions are; an independence of errors, no multicollinearity, homoscedasticity of residuals, a linear relationship between the predictor variable and the dependent variable, and that errors are normally distributed (Berry, 1993).

First, a Durbin-Watson test was used to check the independence of errors. All of the models had a value close to 2 (Model 1= 2.010; model 2=2.038; and model 3= 2.030) which can be considered as excellent (Field, 2009) and therefore, we can conclude that all the models have an independence of errors.

Second, diagnostics tools were used to test for the multicollinearity in the three different models. All the variance inflation factors (VIF) and tolerance levels of the three models exceeded the recommended values of <10 and >.10 (Cohen et al., 2003). Next, the condition indices (CI) and
variance decompositions values were reviewed. In all of the three models occurred slightly higher CI values than the recommended 30 (Hair et al., 2010), however, none of the variables in the models exhibited variance proportions above the recommended 90 percent (see tables in Appendices 8.2.2). Therefore we can conclude that the inherent multicollinearity will not negatively affect the models.

Third, the homoscedasticity of the model was tested by reviewing if the residuals at each level of the predictors had the same variance (Field, 2009). This can be done by creating a scatter plot, where residuals are plotted against predicted values (Cohen et al., 2003). According to the scatter plot results, in the first two models the variance of the residual terms was constant and thus homoscedastic. Whereas the third model with the total number of purchased products per year as the dependent variable had slightly more uneven variance. However, according to Hayes and Cai (2007) relative mild heteroscedasticity does not yield to profound problems and is unlikely to swing the outcome of the analysis drastically. Thus, we can assume that all the models meet the assumption of homoscedasticity. In addition, we can observe from the same scatter plots that there exists a linear relationship between the predictor value and the dependent variables in all of the three models, since the residuals form a horizontal band and are randomly and evenly dispersed throughout the plot (Filed, 2009).

Lastly, the normality of errors was tested by computing residual histograms and normal probability plots (a P-P Plot). All of the models have normal distribution, presenting a bell-shaped curve (Field, 2009) in the residual histogram. In addition, in the normal P-P plots the points lie on the straight line, presenting a normal distribution (Field, 2009). Thus, all the assumptions and requirements are met in order to be able to verify the reliability and validity of the models.
5. Discussion and conclusions

5.1. Discussion

This study contributes to the research on consumer behavior in omni- and multichannel environment and online store development as part of the CRM strategy by offering insights into consumer needs and behavior by combining psychographic attributes with purchase data and further, information about how it can support managerial decision-making. The results suggest that consumer surveys of customer psychographics combined with purchase data can give valuable insight into customer behavior and needs and offer information which is not available through analytical tools like Google Analytics or just by analyzing the customer-level purchase data. Therefore, it can support better decision-making, CRM, and guide the online store development process to better serve customers’ needs. In the long-term it can increase among others customer share and retention rates (Verhoef et al., 2001; Verhoef, 2003).

Respondents’ shopping orientation, motivation to shop online, and online store attribute valuations did indeed predict their purchase behavior online. The more often the respondents purchased from other online stores the higher the odds were to exhibit purchase transactions at Tokmanni’s online store as well. This information is valuable when pursuing an effective CRM strategy. It is challenging to encourage the customer to switch from traditional brick-and-mortar store to the online channel, specifically to carry out the first purchase online. Therefore, customers who are not experienced online shoppers require different type of marketing and incentives to use the online channel than those who are already comfortable with shopping online. Schoenbachler and Gordon (2002) found that information on consumers’ previous purchase behavior, for instance when and how they have purchased, is a good predictor for future behavior. Hence, it would be smart to track customers’ online purchase behavior history via customer studies, since Google Analytics is not able to do this. Most likely this finding can be generalized in other multichannel retail environments as well –customers who have not made purchases online in general are not likely heavy users of the certain retailer’s online store either.

In the open feedback emerged the fact that many of the respondents wanted to make a purchase in Tokmanni’s online store, but finally did not complete the purchase due to some technical issues or because the online store was so disorderly and difficult to use. Schoenbachler and Gordon (2002)
argue that the design of a web site will influence consumer decision of shopping online. They found that the ease of use, the ease of purchase process, as well as the product layout will affect whether consumers are willing to purchase online instead of a brick and mortar store. Hence, this is valuable information for the case company when developing the online store. Making the user experience more pleasant and the site easy-to-use could affect the conversion-rates. Customers’ experiences of the site usability and their satisfaction rates can be investigated by consumer studies as well. This finding can be generalized to other online stores regardless of the business field.

The more apathetic oriented shopper the respondent was, the lower the odds were for exhibiting purchase transactions online. This finding is interesting, since it does not support the past research which suggest that online shoppers are not strongly motivated to shop for fun and may dislike shopping (Mathwick et al., 2001; Morganosky & Cude, 2000). However, it supports the nature of Tokmanni’s customers and the multichannel shopping environment. We can assume that most of the respondents who had not purchased online, are not online shoppers either in general. They might consider online stores still inconvenient and rather as a supplement to the brick and mortar store. However, the shopping orientation increased the explanatory power of the model only by 0.1% and therefore notable conclusion based on the change should not be drawn. In addition, the results of the multiple regression analysis showed that the recreational shopping orientation decreased when the total purchase amount increased, which supports the suggestions of past research. However, this is an interesting finding and most likely it can only be generalized within discounter retailers and therefore, it is important that businesses in other fields would study their customer psychographics to gain more knowledge of the customer behavior, since customers with different shopping orientations require a different type of marketing and CRM strategies.

Further, the higher the motivation to shop online for it convenience was the higher the odds were for the respondent to exhibit purchase transactions. The finding supports the past research which suggest that the intention to shop online is influenced by convenience (Peterson et al., 1997; Wolfinbarger & Gilly, 2001) and it has even been found to be the main motive for consumers to shop online (Jarvenpaa & Todd, 1997). Further, the higher the motivation to shop online for the avant-gardism, the lower the odds were for the respondent to exhibit purchase transactions. Taking account the nature of the case company and its’ business model including low-prices and promotions, this occurrence might be explained by the fact that customers are not seeking the
newest products or trends, instead they value promotions and low prices. This is an interesting insight for the managers—what should be marketed and how in order to reach and satisfy right customers? This specific finding can only be generalized in the discounter retailer field, in other business fields the results could be slightly different. However, these findings proves that the model can offer valuable insights of the customers.

The more the respondents valued online store’s offline presence and price orientation the higher the odds were for exhibiting purchase transactions. We can conclude that Tokmanni’s customers value the omni-channel characteristic of the retailer, since they consider the offline presence important. Thus, it is likely that they prefer to shop in online stores, which also have a brick and mortar store, and therefore are probably not that much users of pure online retailers. This is highly valuable information when developing and managing the online store; if customers value the omni-channel experience, the synergy between the channels should be improved and marketed clearly for the customers. Furthermore, promotions and sales should be integrated between the channels to emphasize the omni-channel experience.

Interestingly, when the valuation of the website attractiveness increased the odds for exhibiting purchase transactions deceased. It is difficult to prove if this is a consequence of an unattractive website; if the respondents value the attractiveness of online stores but have not made purchases at Tokmanni’s online store, it might be partly due to the unattractive website. The open feedbacks support this idea, since many of the respondents gave feedback of the website appearance. Most of the negative feedback was related to the aggressive colors and the disorderly appearance of the site. This is extremely valuable information for the case company, and other online stores as well—the attractiveness of the website can have strong effect on the purchase behavior.

When testing the linearity between respondents’ purchase behavior statistics and their shopping orientation, motivation to shop online, and online store attribute valuations, some interesting relationships occurred. Recreational shopping orientation and the importance of offline presence decreased when the total purchase amount increased. Whereas the motivation to shop online due to its convenience increased when the total purchase amount per year increased. This supports existing research and the suggestion that online stores are used due to their convenience and easiness (Peterson et al., 1997; Wolfinbarger & Gilly, 2001). One might purchase something specific once regardless of the user centric design of the site, however, those who are regular online
shoppers value the convenience of the shopping experience and call for user-friendly purchase experience. In addition, it seems that the importance of offline presence slightly decreases the more comfortable the customer is with shopping online. Further, recreational shopping orientation might decrease when the total purchase amount increases due to convenience of shopping. Experienced online shoppers do not shop for fun or recreation (Mathwick et al., 2001), instead they rather shop online due to the convenience (Schröder & Zaharia, 2008).

Similarly, recreational shopping orientation and the importance of offline presence decreased when the average purchase amount per transaction increased. Whereas, again, the motivation to shop online due to its convenience increased when the total purchase amount per year increased. This also signals that those who buy less (average purchase amount is smaller) might carry out smaller and less expensive shopping online, and hence, enjoy browsing around the online store and buy spontaneously smaller things, and therefore, their recreational shopping orientation is higher than those who carry out more transactions.

Lastly, economical shopping orientation and the importance of offline presence decreased when the total amount of products purchased per year increased. Whereas the motivation to shop online due to its convenience and the importance of online store essentials increased when the total amount of products purchased per year increased.

According to the purchase data, many of the respondents had made only one purchase from Tokmanni’s online store during the past year. Supposedly, they are price-sensitive customers who found one good offer, which was only available online, and therefore made the purchase in the online store instead of the brick and mortar store. This would explain the decrease in economical shopping orientation when the total amount of products purchased increased. In addition, this supports the idea that price is not the main reason to shop online (Donthu & Garcia, 1999), instead the most important reason seems to be convenience. These are highly important findings that managers need to consider when developing and managing the online store. Price-sensitive customers may be the least loyal ones when it comes to retention –those who come once for low prices or promotions are just as likely to go to another store to make the next purchase (Reibstein, 2002). This is important to keep in mind when developing the online store. It is important to first recognize the loyal customers, who keep coming back, and then develop the online store according to their needs and valuations. By analyzing purchase data, it is possible to recognize the price-
sensitive one-time shoppers, however, when it comes to the needs of the loyal customers, more information is required, and that can be reached by studying their needs and valuations through customer surveys.

These results presented above give support to the idea that analytical tools like Google Analytics cannot alone predict and explain customers’ purchase behavior in omni-channel environment. Instead, customer psychographic surveys combined with purchase data can offer highly valuable insights of the customers, thus supporting more effective customer relationship management. However, it is important to pay attention in the study format as well, to consider what is asked and how—in order to get the right and most valuable information on the customer behavior and needs.

5.2. Managerial implications

By combining the customer psychographic information with the purchase data, companies can better understand their customers and predict their future purchase behavior, hence supporting future decision-making and leading to improved customer relationship management. Further, enhanced customer relationship management can ultimately lead to greater customer loyalty, increased purchases, retention, and in addition, greater profitability (Verhoef, 2003; Reinartz et al., 2004). Even though the regression coefficients of this study are limited to the case company and reflect their business model, the research methodology can be implemented in other multichannel retail environments as well.

It will help the managerial decision-making by giving valuable information on the customer behavior, for instance, which various motivations different customer segments have to shop online. Further, it helps companies to focus on the most profitable customers and develop the channels based on those customers’ needs and valuations. Purchase data answers the question what the customers are doing, while combined with psychographic information companies can understand why the customers are acting in a certain way and further use the information in decision-making and enhanced customer relationship management.

Based on the previous literature and the findings of this study the case company is recommended to, first, recognize different consumer segments based on the purchase behavior and psychographic
attributes. Then analyze the motivations and valuations of those distinct groups and develop the online store according to the most profitable customer segments’ needs. Further, target the marketing efforts for the different customer segments based on the purchase behavior and valuations. Lastly, integrate the improved omni-channel strategy into the customer relationship management.

In this research, the shopping motivation and especially the convenience of the online shopping proved to explain the purchase behavior the most in all of the four regression analysis. This reflects Tokmanni’s multichannel business model, where consumers combine different channels during different stages of the purchase processes (Ansari et al., 2008; Verhoef et al., 2015) and therefore pursue different motives to use the online store. By studying and recognizing distinct consumer segments based on their motives and behavior, retailers like Tokmanni can better target their sales and marketing efforts and design the channels to support unfettered buyers’ behavior (Nunes & Cespedes, 2003). As Venkatesan et al. (2009) found in their research, multichannel users are likely to spend more money than single-channel users. Therefore, it is important to focus especially on this segment’s satisfaction and retention. Naturally, the goal is to increase the shopping frequency as well as the average purchase amount of these customers. When purchase data and psychographic data are available, companies can approach these customers through targeted marketing and sales efforts.

Additionally an interesting finding in this research was the extremely high interest towards the availability to leave open feedback in the survey. Of the 5590 respondents 806 left feedback related to the case company. This proves respondents’ commitment to Tokmanni as a company and interest towards Tokmanni’s online store development process.

The open feedback was coded and sorted to various categories, of which four themes arise specifically; product variety, website attractiveness, usability, and the multichannel environment of the case company. Due to the confidentiality issues, the results can not be analyzed more in-depth in this paper. However, some conclusions are drawn. Based on this finding, the case company is recommended to create a customer loyalty program and hence co-create value with the most important and loyal customers. In the future, the customer loyalty program would help and improve the data gathering of the customers, combining both actual purchase data as well as the survey data. Through the loyalty program, surveys could be conducted on a regular basis to study customers’
satisfaction and needs and further get valuable insights of the customers. It could also serve as a platform for co-creation, where customers could give feedback and development ideas. The loyalty program would also help the case company to recognize the most valuable customer segments, and hence improve the online store and channel synergies based on these segments’ needs.

All in all, even though the regression coefficients and findings of this study are mostly limited to the discounter retailing environment, the study methodology can be generalized and applied into other companies’ operating in omni- and multichannel environments as well. However, when adapting the framework of this study, some improvements for the model are demanded. Since the models only explained around 10% of the consumer behavior, there is a call for further research on a more predictive model.

5.3 Limitations and future research

There are some limitations in this study related to the research methods used as well as to the research context. Since the data was gathered via an online questionnaire the self-completed survey might restrict external validity. In addition, an incentive was used to encourage people to answer, therefore, some of the respondents might have answered only due to the incentive and thus some responses might not be fully realistic. A data reduction was done carefully, but some invalid responses, which are not recognizable, might still occur. Furthermore, the self-added items in the scales might have affected the results even though they were dropped out from the final analysis. Another limitation lies in the purchase history data, which was gathered only from the past year (Jan-Sep). For more accurate analysis and better generalization within the case company it would have been necessary to analyze data at least from two calendar years, in order to be able to recognize and generalize a phenomenon in the purchase behavior.

One of the main limitations of this study is related to the inherent limitations of the single case method used. Since the purpose of a case study is to provide in-depth understanding about the research phenomena in the context where it occurs (Eisenhardt & Graebner, 2007), the results can not be necessarily generalized. Hence, the case company being a Finnish discount retailer, not all of the results can be generalized globally in multichannel retailing environment. However, the results provide rich descriptions of the research phenomenon in this specific context and can be
generalized within a discounter retailing context. Most likely, customer surveys would give highly valuable information of the customers in other context as well, but the results would be different depending in the field of business. Therefore, the topic should be studied in other contexts and field of businesses as well, in order to understand the phenomena more broadly and be able to generalize the need for customer surveys.

In addition, there is a need for a broader study of the right scales to be measured. Within this case study shopping orientation, motivations to shop online, and online store attribute valuations were the most accurate themes to be studied in order to be able to develop the online store based on the customer needs and characteristics. However, in the future, more research needs to be conducted in order to find out, which aspects in the customer survey serve the certain context or field of business the best way. Additionally, for instance, which shopping orientations give the most valuable information in certain context. An interesting finding was that the open question proved to offer highly valuable information. Therefore it should be studied how the responses of the open questions could be coded differently in order to make it easier to analyze and interpret.

Based on the literature review, there does not exist any previous research on customer surveys as part of the customer relationship management in multichannel retail environment. Previous research has focused on customer-level purchase history data combined with data analysis as Google analytics. However, no research combines these two with customer psychographics as shopping orientation and motivation to shop online. Since there does not exists any theory of the value of customer surveys as part of the customer relationship management, further research on the topic needs to be conducted in order to get better and more comprehensive understanding about the phenomena.

In addition, in the future this research method could be taken further by segmenting customers based on their purchase behavior and psychographic attributes. Hence, companies could recognize different needs more efficiently and target the sales and marketing efforts better for various segments.

Lastly, all the four models used in this study have a relatively low total explanatory power and explain only around 10% of respondents’ purchase behavior. To develop a highly explanatory model calls for future research on the topic as well as on the set of parameters used in the survey.
5.4 Conclusion

Customer relationship management requires an integration of processes, people, and marketing capabilities, which is enabled through data, information and technology, hence providing enhanced opportunities to use the data and information to both understand customers and co-create value with them. Eventually, creating improved shareholder value through the development of relationships with the key customers. (Payne & Frow, 2005) Online analytic tools such as Google Analytics can not alone explain customer behavior, neither recognize customer needs. Even when combined with customer-level data, such as purchase behavior it will not describe customers’ behavior deeply enough. Therefore, analytic tools such as Google Analytics should not alone guide the managerial decision-making. There is lack of knowledge in past research on how firms could collect information on the multichannel environment and study for instance consumer shopping behavior across channels (Neslin & Shankar, 2009).

This study makes a contribution to the research by creating a model to study consumer shopping behavior in omni-channel environment. A customer survey was created and empirically tested to study respondents’ psychographic qualities such as shopping orientation, motivation to shop online, and online store attribute valuations. It was combined with customer-level purchase data, with the aim to gain in-depth understanding about the case company’s customer behavior, needs, and valuations in an omni-channel retailing environment. Further, recommendations were given to how the information can support the decision-making as part of the customer relationship management and when developing the online store.

The research proposes that by combining surveys on consumer psychographic with purchase behavior data, firms can gain unique and valuable insight of their customers, which is not achievable via analytical tools like Google Analytics or by observing customer data, such as purchase frequencies and average purchase amounts.

The findings of the study indicate that different consumers have different motives to shop online, they possess various shopping orientations and value online store attributes variously. Furthermore, the results show that consumer behavior can be explained and predicted by these qualities. Nonetheless, more future research on the topic is demanded to gain support to these finds and enhance the model for better explain customer behavior.
7. References


**Internet sources**


8. Appendices

8.1 Analyses for heteroscedasticity and error term normality

8.1.1 Total purchase amount
8.1.2 Average purchase amount
8.1.3 Total number of purchased products

8.2 Analyses for multicollinearity
8.2.1 Multicollinearity: Logistic Regression
## Multicollinearity: condition indices & variance proportions

| Model | CI | Female | 18-24yo | 25-34yo | 35-44yo | 45-54yo | 55-64yo | Working | Unemployed | Retiree | Previous PB online 1 | Previous PB online 2 | Previous PB online 3 | Previous PB online 4 | Economic | Recreation | Health | Apathetic | Convention | Role-enactment | Avant-garde | Affiliation | Personalized services | Essentials | Offline | Price | Orientation | Attractiveness |
|-------|----|--------|---------|---------|---------|---------|---------|---------|-----------|-------|---------------|---------------|---------------|---------------|-----------|-----------|---------|-----------|------------|----------------|-------------|-----------|--------|-------------|---------------|
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| 2     | 2  | 1,783  | .00     | .00     | .02     | .02     | .00     | .00     | .00      | .00   | .01           | .00           | .00           | .00           | .01       | .01       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 3     | 3  | 2,011  | .00     | .17     | .03     | .00     | .01     | .00     | .01      | .05   | .00           | .00           | .00           | .00           | .00       | .01       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 4     | 4  | 2,087  | .00     | .03     | .02     | .06     | .06     | .01     | .00      | .00   | .10           | .00           | .00           | .00           | .00       | .00       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 5     | 5  | 2,107  | .00     | .05     | .09     | .05     | .01     | .00     | .00      | .00   | .00           | .00           | .07           | .00           | .00       | .00       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 6     | 6  | 2,116  | .00     | .01     | .08     | .00     | .03     | .01     | .00      | .00   | .00           | .00           | .00           | .00           | .00       | .00       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 7     | 7  | 2,129  | .00     | .06     | .06     | .03     | .00     | .00     | .00      | .00   | .01           | .00           | .01           | .01           | .05       | .01       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 8     | 8  | 2,181  | .00     | .15     | .00     | .06     | .00     | .00     | .00      | .05   | .00           | .00           | .08           | .01           | .00       | .01       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 9     | 9  | 2,327  | .00     | .06     | .04     | .01     | .02     | .00     | .01      | .03   | .01           | .00           | .00           | .00           | .03       | .04       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 10    | 10 | 2,427  | .00     | .00     | .01     | .02     | .00     | .00     | .00      | .00   | .00           | .00           | .00           | .00           | .00       | .00       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 11    | 11 | 3,725  | .07     | .02     | .02     | .00     | .01     | .00     | .01      | .01   | .00           | .00           | .00           | .00           | .01       | .00       | .01     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 12    | 12 | 7,418  | .00     | .13     | .43     | .57     | .69     | .62     | .18      | .17   | .00           | .00           | .01           | .02           | .00       | .00       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 13    | 13 | 11,775 | .00     | .15     | .00     | .07     | .06     | .04     | .00      | .00   | .00           | .00           | .00           | .00           | .00       | .00       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |
| 14    | 14 | 20,895 | .01     | .17     | .12     | .10     | .10     | .08     | .38      | .34   | .49           | .47           | .23           | .37           | .41       | .37       | .00     | .00       | .00       | .00           | .00           | .00       | .00     | .00         | .00           |

### Table Notes:
- CI: Condition Index.
- Female, 18-24yo, 25-34yo, 35-44yo, 45-54yo, 55-64yo: Age categories.
- Working, Unemployed, Retiree: Employment status.
- Previous PB online: Previous Paulson Benefit online status.
- Economic, Recreation, Health: Economic, Recreational, and Health indices.
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- a. Dependent Variable: Has the respondents purchased something from Tokmanni online store during the past year (yes/no)
## 8.2.2 Multicollinearity: Regression Analyses 1-3

### Multicollinearity: condition indices & variance proportions

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a. Dependent Variable: Average purchase amount
### Collinearity Diagnostics

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*Dependent Variable: Total number of purchased products*
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b. n=5590
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a) n=5590

a) n=806
## 8.4 Pearson correlations

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<td>30. Attractiveness</td>
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**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).
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**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
8.5 Research questionnaire

Kiitos mielenkiinnosti kyselyä kohtaan. Mielipiteesi ja näkemyksesi ovat meille arvokasta tietoa.


Kyselyn tarkoituksena on kartoittaa kuluttajien kokemuksia, näkemyksiä ja tarpeita verkkokauppoja kohtaan. Annettujen vastausten avulla voimme kehittää Tokmannin verkkokauppaan vastaamaan paremmin asiakkaidemme tarpeita ja parantaa verkkokaupassa asiomisen kokemusta.

Kaikkien kyselyyn vastanneiden kesken arvotaan yksi 100 euron lahjakortti Tokmannin verkkokauppaan. Voittajalle ilmoitetaan henkilökohtaisesti lokakuun aikana.

TAUSTAT

1. Sukupuoli
- Nainen
- Mies

2. Ikä
- 18-24 v.
- 25-34 v.
- 35-44 v.
- 45-54 v.
- 55-64 v.
- Yli 64 v.

3. Asuinpaikkakunta
- Pääkaupunkiseutu
- Uusimaa
- Etelä-Suomi
- Pohjois-Suomi
- Itä-Suomi
- Länsi-Suomi
4. Mikä seuraavista vaihtoehtoista kuvaa parhaiten nykyistä tilannettasi?

- Opiskelija
- Työssäkäyvä
- Työön
- Eläkeläinen

5. Mikä on koulutustaustasi tai nykyinen opiskelupaikkasi?

- Yliopisto
- Ammattikorkeakoulu
- Ammattikoulu
- Lukio
- Peruskoulu
- Muu

6. Mitkä ovat yhteenlasketut vuositulosi veroja vähentämättä?

- alle 20.000€
- 20.000-35.000€
- 35.000-50.000€
- 50.000-85.000€
- 85.000-100.000€
- Yli 100.000€
- En halua vastata

7. Kuinka monta jäsentä kuuluu talouteesi kun lasket itsesi myös mukaan?

- 1
- 2
- 3
- 4
- 5 tai enemmän

8. Arvioi asteikolla 1-7 kuinka paljon käytät viikossa aikaa vapaa-ajallasi kuhunkin seuraavista asioista internetissä?

(1=0h 2=0-0,5h 3=0,5-1h 4=1-2h 5=2-3h 6=3-4h 7=enemmän kuin 4h)

- Uutisten lukeminen
- Sosiaalinen media ja yhteisöt ja keskustelufoorumin
- E-mail
- Tiedon etsiminen
- Videoiden/netti TV:n katselu
- Inspiraaation/ideoiden etsiminen
- Nettipelit
- Verkkopankki
- Ostosten tekeminen verkossa
ASIOIMINEN VERKKOKAUPOISSA JA MYYMÄLÖISSÄ

9. Mitä kautta olet kuullut Tokmannin verkkokaupasta? (Voit valita useampia vaihtoehtoja)
   - Tokmannin mainoslehdestä
   - Televisiosta
   - Radiosta
   - Tokmannin myymälästä
   - Sähköisen uutiskirjeen kautta
   - Facebookista
   - Mainonnan kautta internetissä (esim. hakukonemainonta, bannerimainokset)
   - Hintavertailusivustoilta (esim. vertaa.fi)
   - Ystävältä/tutulta
   - En ole kuullut Tokmannin verkkokaupasta minkään kanavan kautta
   - Muualta:

10. Mihin tarkoitukseen käytät yleisesti verkkokauppasivustoja? (Voit valita useampia vaihtoehtoja)
    - Inspiraaion/ideoiden etsimiseen
    - Tuotteiden selailuun
    - Tuotetietojen etsimiseen
    - Hintavertailuun
    - Tarjousten etsimiseen
    - Ostosten tekemiseen
    - Palautteen antamiseen
    - Myymälöiden yhteystietojen ja aukioloaikojen hakemiseen
    - Muuhun:

11. Mihin tarkoitukseen käytät Tokmannin verkkosivuja? (Voit valita useampia vaihtoehtoja)
    - Inspiraaion/ideoiden etsimiseen
    - Tuotteiden selailuun
    - Tuotetietojen etsimiseen
    - Hintavertailuun
    - Tarjousten etsimiseen
    - Ostosten tekemiseen
    - Palautteen antamiseen
    - Myymälöiden yhteystietojen ja aukioloaikojen hakemiseen
    - Muuhun:
12. Mikä seuraavista vaihtoehtoista kuvaa parhaiten käyttäytymistäsi tehdessäsi ostoksia (valitse vain yksi vaihtoehto):

- Minulla on tapana sekä etsiä tietoa että tehdä ostoksia myymälöissä.
- Minulla on tapana sekä etsiä tietoa että tehdä ostoksia verkkokaupoissa.
- Minulla on tapana etsiä tietoa internetistä, mutta tehdä ostokset myymälöissä.
- Minulla on tapana etsiä tietoa myymälöissä (esim. kysyä apua myyjiltä, kokeilla tuotetta jne.), mutta tehdä ostokset verkkokaupoissa.
- Minulla on tapana etsiä tietoa sekä internetistä että myymälöissä, mutta tehdä ostokset myymälöissä.
- Minulla on tapana etsiä tietoa sekä internetistä että myymälöissä, mutta tehdä ostokset verkkokaupoissa.

13. Kuinka usein käyt Tokmannin verkkosivuilla?

- Noin kerran viikossa tai useammin
- Noin kerran kuukaudessa
- Muutaman kerran vuodessa
- Noin kerran vuodessa tai harvemmin
- En ole käynyt Tokmannin verkkosivuilla

14. Kuinka usein ostat tuotteita Tokmannin verkkokaupasta?

- Noin kerran viikossa tai useammin
- Noin kerran kuukaudessa
- Muutaman kerran vuodessa
- Noin kerran vuodessa tai harvemmin
- En ole ostanut mitään Tokmannin verkkokaupasta

15. Kuinka usein ostat tuotteita muista verkkokaupoista?

- Noin kerran viikossa tai useammin
- Noin kerran kuukaudessa
- Muutaman kerran vuodessa
- Noin kerran vuodessa tai harvemmin
- En ole ostanut mitään verkkokaupista

16. Kuinka usein ostat tuotteita Tokmannin myymälästä?

- Noin kerran viikossa tai useammin
- Noin kerran kuukaudessa
- Muutaman kerran vuodessa
- Noin kerran vuodessa tai harvemmin
- En ole ostanut mitään Tokmannin myymälästä
17. Mitä seuraavista tuotteista olet ostanut Tokmannin verkkokaupasta kuluneen vuoden aikana? (Voit valita useampia vaihtoehtoja)

- Urheilu, harrastus ja muut vapaa-ajan tuotteet
- Kauneus, terveys ja hygienia tuotteet
- Elintarvikkeet
- Elektroniikka
- Kodinkoneet
- Siivousvälineet ja -tuotteet
- Sisustuksen ja kodin tarvikkeet
- Autojen ja muiden kulkuneuvojen tarvikkeet
- Työkalu- ja sähkötarvikkeet
- Lemmikkieläinten hoitotuotteet
- En ole ostanut mitään edellä olevista vaihtoehdoista

18. Mitä seuraavista tuotteista olet ostanut mistä tahansa verkkokaupasta kuluneen vuoden aikana? (Voit valita useampia vaihtoehtoja)

- Urheilu, harrastus ja muut vapaa-ajan tuotteet
- Kauneus, terveys ja hygienia tuotteet
- Elintarvikkeet
- Elektroniikka
- Kodinkoneet
- Siivousvälineet ja -tuotteet
- Sisustuksen ja kodin tarvikkeet
- Autojen ja muiden kulkuneuvojen tarvikkeet
- Työkalu- ja sähkötarvikkeet
- Lemmikkieläinten hoitotuotteet
- En ole ostanut mitään edellä olevista vaihtoehdoista

19. Mitä seuraavista tuotteista olet ostanut Tokmannin myymälästä kuluneen vuoden aikana? (Voit valita useampia vaihtoehtoja)

- Urheilu, harrastus ja muut vapaa-ajan tuotteet
- Kauneus, terveys ja hygienia tuotteet
- Elintarvikkeet
- Elektroniikka
- Kodinkoneet
- Siivousvälineet ja -tuotteet
- Sisustuksen ja kodin tarvikkeet
- Autojen ja muiden kulkuneuvojen tarvikkeet
- Työkalu- ja sähkötarvikkeet
- Lemmikkieläinten hoitotuotteet
- En ole ostanut mitään edellä olevista vaihtoehdoista

(1=täysin eri mieltä  2=melko paljon eri mieltä  3=jossain määrin eri mieltä  4=ei samaa eikä eri mieltä  5=jossain määrin samana mieltä  6=melko paljon samana mieltä  7=täysin samana mieltä

- Olen yleisesti ottaen tyytyväinen kokemuksissani verkkokaupoissa asioimiseen.
- Olen tyytyväinen ostoskorttikuinka muistutuksissa verkkokaupassa (esim. tuotteet tai majoitteet).
- Olen tyytyväinen ostoskorttikuinka muistutuksissa verkkokaupassa (esim. asiakastuki ja myynnin jälkikäynti).

21. Arvioi asteikolla 1-7 miten hyvin seuraavat yleisesti kuluttamiseen liittyvät väittämät vastaavat omaa käyttäytymistäsi?

(1=täysin eri mieltä  2=melko paljon eri mieltä  3=jossain määrin eri mieltä  4=ei samaa eikä eri mieltä  5=jossain määrin samana mieltä  6=melko paljon samana mieltä  7=täysin samana mieltä)

- Minulla on tapana tutkia tuotteen ominaisuuksia huolellisesti tehdessäni ostopäättöösti.
- Minulla on tapana vertailta hintoja.
- Etsin paljon informaatiota löytääkseni parhaimman hinnan.
- Minulla on tapana ostaa tuotteita alennuksesta.
- Tykkään usein tehdä ostoksia vaikka en tarvitsee ostopäättöösti.
- Minulle ostosten tekeminen on yksi tapa vieä aikaa.
- Ostan usein usein suunnittelematta sitä etukäteen.
- Teen ostoksen niin nopeasti kuin mahdollista.
- Menen ostoksille vasta kun minun on aivan pakko.
- On hyvin vähän asioita joiden ostamisesta nauttisin.

VERKKOKAUPPA

22. Arvioi asteikolla 1-7 kuinka paljon seuraavat verkkokauppojen ominaisuuksin liittyvät väittämät vaikuttavat tytynyvää syteesi.

(1=ei vaikuta lainkaan tytynyvää syteesi  2=vaikuttaa todella vähän tytynyvää syteesi  3=ei vaikuta juurikaan tytynyvää syteesi  4=neutraali  5=vaikuttaa jossain määrin tytynyvää syteesi  6=vaikuttaa melko paljon tytynyvää syteesi  7=vaikuttaa todella paljon tytynyvää syteesi)

- Voin tehdä ostokset kotona ollessani.
- Voin välttää tavanomaisen ostosten tekemisen.
- Voin välttää myyjien kanssa asioimisen.
- Tuotteet toimittetaan suoraan kotiovelleni.
- Voin tehdä ostokset mihin tahansa vuorokaudeen aikaan.
- Voin välttää jonottamisen.
- Voin tehdä kaikki ostoskortien kerralla.
- Voin välttää ruuhkia.
- Voin suorittaa ostoskortti nopeasti.
- Minun ei tarvitse matkustaa useaan kauppaan löytääkseni haluamani.
Löydän haluamani tuotteet mahdollisimman nopeasti.
Voin tarkistaa verkkokaupan sivuilta onko tuotetta saatavilla fyysisessä myymälässä.
Voin etsiä hyviä tarjouksia.
Voin tehdä todellisia löytöjä.
Voin vertailla tuotteiden hintoja ja ominaisuuksia löytääkseni parhaan vaihtoehdon rahoilleni.
Pysyn ajan tasalla uusimmista trendeistä.
Omistan uusimmat tuotteet ensimmäisten joukossa.
Pysyn ajan tasalla uusista tuotteista.
Voin keskustella kokemuksistani muiden asiakkaiden kanssa, jotka ovat kiinnostuneita samoista asioista kuin minä.
Voin löytää muita asiakkaita, jotka ovat kiinnostuneita samoista tuotteista kuin minä.
Voin olla vuorovaikutuksessa muiden kuluttajien kanssa internetissä.
Voin Lukea muiden kuluttajien antamaa palautetta ja suosituuksia tuotteista.
Sivusto tiedottaa uusista, minua kiinnostavista tuotteista.
Sivusto tiedottaa sen hetken suosituimmista tuotteista.
Sivusto antaa minulle tuotesuosituksia, jotka vastaavat tarpeitani.
Sivusto tiedottaa erikoistarjouksista ja alennusmyyneistä.
Saan sähköposti tiedoteita uusista tuotteista ja tulevista alennusmyyneistä.
Sivuston lähettämät mainokset ja tarjoukset ovat suunniteltu vastaamaan tarpeitani.

23. Arvioi asteikoilla 1-7 kuinka paljon seuraavilla verkkokauppojen ominaisuuksilla on merkitystä sinulle.

(1=ei lainkaan merkitystä 2=todella vähän merkitystä 3=ei juurikaan merkitystä 4=neutraali 5=jossain määrin merkitystä 6=melko paljon merkitystä 7=todella paljon merkitystä)

- Verkkokauppa on turvallinen.
- Verkkokauppa on luotettava.
- Verkkokaupassa on halvat hinnat.
- Verkkokauppa lähettää vahvistuksen tilauksesta ja toimituksesta.
- Tilaaminen on helppoa.
- Maksaminen on helppoa.
- Ostaminen on mahdollista yhdellä klikkauksella.
- Tuotteen palauttaminen on helppoa.
- Tuoteinformaation on laadukasta.
- Verkkokaupan henkilökunta on helppo tavoittaa.
- Tuotteen toimitus on halpaa.
- Tuote toimitetaan nopeasti.
- Tuotteen noutaminen on mahdollista useasta eri paikasta.
- Voin helposti vertailla tuotteita sivustolla.
- Voin arvostella ostamani tuotteita.
- Löydän nopeasti etsimäni tuotteet.
- Verkkokaupan hakutoiminto toimii hyvin.
- Verkkosivun fyysinen myymälä sijaitsee lähellä minua.
- Voin halutessani palauttaa verkkokaupasta ostamani tuotteen fyysiseen myymälään.
- Verkkokaupassa on erikoistarjouksia.
- Verkkokauppa tiedottaa alennusmyynteistä ja uusista tuotteista.
- Verkkokaupassa on säännöllisesti alennusmyyntejä ja erikoistarjouksia.
- Verkkokaupan yleisilme on houkutteleva.
- Verkkokauppa on nykyaikainen.
- Verkkokauppa on hyvin suunniteltu.
- Verkkokauppa on selkeä ja helppokäyttöinen.
- Verkkokauppan selaaminen on vaivatonta.
- Verkkokaupassa on laaja tuotevalikko.
- Verkkokauppa tarjoaa uusimmat tuotteet.


(1=täysin eri mieltä 2=melko paljon eri mieltä 3=jossain määrin eri mieltä 4=ei samaa eikä eri mieltä 5=jossain määrin samaa mieltä 6=melko paljon samaa mieltä 7=täysin samaa mieltä 8=en tiedä)

- Sivut ovat houkuttelevat.
- Sivun värimaailma on houkutteleva.
- Sivusto on suunniteltu niin että sieltä on helppo löytää etsimänsä tuote.
- Sivusto on suunniteltu niin että sieltä on helppo löytää etsimänsä tieto.
- Sivustolla on miellyttävää tehdä ostoksia.
- Sivusto on käyttäjäystävällinen.
- Sivustolta on helppo ostaa tuotteita.
- Sivustolla on helppo maksaa ostamansa tuote.

25. Mainitse, mikäli sinulla tulee mieleen joku erityisen hyvä verkkokauppa: