

UNIVERSITY OF LJUBLJANA  
FACULTY OF ECONOMICS

MASTER'S THESIS

**THE IMPACT OF VALUE CO-CREATION ON CONSUMER  
LOYALTY IN AUTOMOTIVE INDUSTRY**

Ljubljana, June 2015

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## INTRODUCTION

Some recent unpredictable changes in technology, which have shortened product life cycles and increased competition as well as consumer demand and growing expectations, have revealed complexity in the business environment (Filieri, 2013; Tsafarakis, Grigoroudis, & Matsatsinis, 2011; Zhang & Chen, 2008). Those factors altogether generate today's complex market supply. However, despite variety of choice regardless industry, companies are often struggling to create products that are appealing enough to fulfil customers' needs, therefore, increase loyalty and consequently profits (Epp & Price, 2011; Ulaga & Reinartz, 2011). To achieve such level of product's success, companies have to be constantly innovative, since it has been proven that innovation in various forms is crucial to competitive advantage (Brown & Eisenhardt, 1995; Cooper, 2000; Motwani, Dandridge, & Jian, 1999). In the other words, Chesbrough (2003, p. 17) postulates the following: "In today's world, where the only constant is change, the task of managing innovation is vital for companies of every size in every industry."

Redesign or a new product development constitutes one of the most critical points for firm's viability (Tsafarakis et al., 2011, p. 1253). Nowadays, in highly competitive market, the main challenge companies are facing is how to generate new and innovative products ideas. Launching a new product or redesigning an existing one is far from being simple, since high costs of a product's failure may have a strong negative impact on the firm's profitability and its reputation (Tsafarakis et al., 2011, p. 1253).

In the last decade, the development of internet and communication technologies provided consumers with access to unlimited information and enabled them to easily reach and interact with other consumers and companies worldwide (Prahalad & Ramaswamy, 2004; Skarzauskaite, 2013). Therefore, consumers have become empowered. In other words, they desire much more important role in value creation process with companies than they used in the past when they were seen only at the end of the value chain as buyers (Hoyer, Chandy, & Dorotic, 2010; Mascarenhas, Kesavan, & Bernacchi, 2004).

As internal research and development departments are often failing to keep up with current market trends and growing customers' expectations, companies have to look for resources of new ideas outside the boundaries of their firms (Chesbrough, 2003; Ramaswamy & Gouillart, 2010). Therefore, involving target customers in value generation process has been recently gaining its importance as a new marketing strategy, which enables companies to better understand market demands and to draw customers closer to their products in the pursuit of stronger and more profitable relationship (Auh, Bell, & McLeod, 2007; Rossi, 2011; Zhang & Chen, 2008). Such new marketing strategy, which can lead to innovation, consumer's loyalty and profitability, refers to co-creation. According to this modern concept of value generation, which strongly differs from the traditional value-in-exchange, consumers are seen as key resource in the process of value creation and innovation of a company (Grönroos, 2008; Ophof, 2013; Vargo & Lusch, 2004).

Multinational companies (such as Nike, Dell, Unilever, Procter & Gamble, Apple and GlaxoSmithKline) are just few giants on the list of those who embraced the new powerful marketing strategy and exploit the new role of empowered consumer to win competitive advantages.

In 2007, a new passenger car registration started to continually decrease. Since that year there has been a continual fall to about 12 million new car registrations in 2013, which is a decline of 23%. This reflects a close link between new vehicle sales and the economic climate in Europe (ICCT, 2013). High market competitiveness, declining margins and demanding consumers' needs have forced car companies to seek differentiation and customer loyalty. The proof that co-creation in today's dynamic environment is a big opportunity for car manufacturers to gain competitive advantage are automotive companies Ford, Volkswagen, BMW, Fiat and Audi, which have successfully implemented one of co-creation activities in their business process. According to their case studies, car manufacturers who successfully manage to implement co-creation strategy and encourage interactive involvement can easily enhance products, create in-depth customer experiences, and gain competitive advantage. The main benefits proved are not only revenue growth, better retention, and lower operating costs, but also stronger relationship with customers and their delight (PwC, 2013).

Recent environmental challenges and fast changing consumers' needs require automotive companies to rapidly adapt to changing preferences and speed up the new car model development process. Automotive manufacturers, which delay in introducing new car models or face lifts of their existing models, are exposed to great risk of falling behind their competitors. Moreover, recent market launches of Smart ForTwo, Fiat Stilo, Volkswagen Phaeton or Peugeot 1007 are just few examples of catastrophic product failure negative effects on companies' profitability (Bernstein Research, 2013). To avoid such negative referrals linked to market introduction, co-creation strategy enables automotive companies to interact and connect with target customers in order to generate successful vehicle designs that will later reach predicted sales targets and profitability.

My thesis aims to provide insights into development of sustainable competitive advantage by engaging target customers in new vehicle co-creation activity. Although the co-creation marketing strategy has been a widely discussed topic in academia and accepted in various industries, there is still little knowledge concerning critical factors that boost customers' participation in such co-creation activity, especially in automotive industry. Moreover, little effort was made to understand how brand loyalty for a certain automobile brand is affected when such co-creation activity is successfully implemented in the business process. Managers in the automotive industry are often wondering how customer co-creation would enhance their company's business performance. Therefore, the question how co-creation can serve business purposes remains largely unanswered (Saarijärvi, Kannan, & Kuusela, 2013, p. 7). In my research, I have focused mainly on the Slovenian automotive market, therefore, on the Slovenian car buyers.



The objectives of the research were the following: (1) Which amongst the chosen factors would boost the Slovenian car buyers' participation in new vehicle co-creation activity of an automotive company? (2) Would the implementation of such vehicle co-creation activity influence participants' attitudinal and behavioural loyalty toward this automotive brand? (3) Does the attitudinal loyalty amongst participants have a predictive path, which leads toward behavioural loyalty?

In order to empirically test, how the chosen key factors affect the customers' participation in new vehicle co-creation activity in automobile industry, the proposed models of Hakanen and Jaakkola (2012, p. 605) and Auh et al. (2007, p. 361) were applied. Although these researchers together explored 13 different factors, I will combine both conceptual models by choosing four key factors either from the first or the second research model and create a new one, which will be later the core conceptual framework on which my research hypotheses will be based. In order to investigate the influence of new vehicle co-creation activity on loyalty amongst participating individuals, I will include in the research model attitudinal and behavioural loyalty. Not only I had intended to examine the effect of co-creation on both dimensions of customer loyalty in automotive industry, but also the relationship between both types of loyalty.

My research study will involve three steps. First, the descriptive method of the scientific research will be used in order to gain insights into the core concepts of the study, particularly in the field of co-creation and customer loyalty. In the literature review, I will also use the descriptive and comparative method, as I will compare the findings of different authors published mainly in scientific papers, books, articles, magazines, and websites. Since the co-creation phenomenon has already been well recognized, I will try to facilitate the understanding of theoretical knowledge with some practical examples of best practices amongst different industries, with a focus on automotive sector. Moreover, throughout my master's thesis, I will use compilation method in order to combine different information into a whole.

In the second part, a conceptual design method and method of model development will be utilised, which will help me to develop research hypotheses and therefore link the concepts of co-creation and customer loyalty into a whole. The empirical research, which will help me to get the answers to my research questions, will be based on a quantitative survey, conducted through online questionnaire and analysed with the SPSS 20.0. I will focus my research on testing the influence of chosen key factors, based on previous researches done by Hakanen and Jaakkola (2012, p. 605) and Auh et al. (2007, p. 361) on co-creation activity. A survey conducted on a convenience sample of Slovenian respondents will enable me to empirically test the influence of the chosen key factors on customers' participation in new vehicle co-creation activity. Furthermore, it will also help me understand if a customers' participation in such co-creation activity influence customers' loyalty (attitudinal and behavioural) towards that automobile brand or not.

In the last part of my master's thesis, the synthesis method will be used as I will aggregate and interpret my research findings.

The thesis consists of five chapters. In the first chapter, I provide a basic definition of co-creation, a new source of innovative value creation, as an opposite strategy of traditional value generation. Secondly, I focus on explaining how the role of consumers has dramatically changed due to their empowerment and active collaboration with companies. After that, I expand the definition of co-creation by discussing its historical roots, some key benefits for companies and customers, its different typologies and forms and the most critical factors which can strongly affect successful realisation of such strategy. Finally, I conclude the first chapter by providing few examples of best practices of co-creation adoption amongst different industries.

I introduce the second chapter by providing an insight in development of automotive industry in the last decade, describing its trends, opportunities and challenges for the future. In order to draw a parallel with co-creation strategy, I give some examples of successful use of consumer empowerment, implemented by Volkswagen, Ford, BMW, Audi, and Fiat.

In the third chapter, I concentrate on the concept of brand loyalty, its multi dimensions, which have been developing over decades, its phases and measurement methods.

I devote the fourth chapter to the study of new vehicle co-creation activity on brand loyalty influence amongst the Slovenian car buyers. Firstly, I explain the need of innovative marketing strategies in automotive sector to maximise profits and perceived value in the highly competitive industry. Secondly, I list the usual steps and stages of an average concept generation process, whereas suggesting the possible way to simplify it with the help of an active consumer's involvement. I continue with conceptualisation of my conceptual research model, describing research hypotheses and methodology. To conclude the fourth chapter, I introduce the main findings of the qualitative research.

The last chapter deals with discussion of the research results, evaluation and contribution of the thesis, its limitations and implications for the future research.

## **1 CO-CREATION – A NEW SOURCE OF INNOVATIVE VALUE CREATION**

The supply in the market is bigger than at any point in history, but product variety is not necessarily linked to better consumer experiences. The complexity of offerings frustrates consumers, since they find it hard to decide which products or services suit them best (Prahalad & Ramaswamy, 2004, p. 1). Despite such variety of choice, companies are often struggling to create a value, which meets consumers' expectation and their needs (Epp & Price, 2011; Ulaga & Reinartz, 2011).

Nowadays, regardless of industry, almost all companies are facing a great risk operating in a dynamic environment, which is evolutionary faster than ever before (Mascarenhas et al., 2004, p. 486). Advances in digitalisation, emergence of globalisation, industry deregulation, and technology convergence forced managers not focus anymore only on costs, products and process quality (Prahalad & Ramaswamy, 2004, p. 2). Therefore, high market competitiveness, declining margins, and extensive consumer needs have forced companies to constantly seek differentiation and consumer loyalty, in order to stay ahead of its competitors and to reduce risk of not meeting customers' needs in a form of a product failure in the market (Business Innovation Observatory, 2014; Hakanen & Jaakkola, 2012). Those companies are well aware that superior performance and competitive advantage are inextricable linked (Barney, 1991; Hunt & Morgan, 1995). Hence, in order to survive, companies must strive for new sources of continuous innovation and creativity to gain such superior performance (Prahalad & Ramaswamy, 2004; Yuen, Zeitoun, & Smith, 2009). If companies fail in creating whole consumer experience, its competitors will seize the opportunity (Business Innovation Observatory, 2014, p. 2).

As intellectual property and relationship between consumers and companies become increasingly important source of innovation and new value creation, the co-creation strategy provides ways to integrate those assets through consumer involvement in the value generation process (Kambil, Friesen, & Sundaram, 1999, p. 43). There is no longer an active supplier managing an internal, closed process and a passive consumer, who stays outside this process, but a co-creation framework which merges the active roles of both, supplier and consumer (Andreu, Sanchez, & Mele, 2010, p. 244).

In the following sections, I will discuss, according to literature review and previous research, the difference between traditional and modern value creation, the changing role of consumers, the concept of co-creation and its historical development. In addition, I will review the main benefits for implementation of co-creation process and explain critical factors, which may affect its successful realisation. Furthermore, I will present different classifications of co-creation types and finally describe few best known examples of co-creation practices in diverse industries.

## **1.1 Value creation: traditional isolated value creation system versus co-creation approaches**

Normann and Ramirez (1993, p. 65) define the strategy concept as the art of creating value. Through strategy, managers identify opportunities to bring value to customers and later deliver that value at the profit (Normann & Ramirez, 1993, p. 65). In the process of value creation, three types of activities are involved: (1) creation of product or service, (2) realising revenues from consumers and (3) minimising cost flows to suppliers (Bowman & Ambrosini, 2007, p. 360).

According to Grönroos (2008, p. 303), the value is difficult to explain and measure. At the most general level, value creation describes a process, which increases customer's well-being (Grönroos, 2008; Nordin & Kowalkowski, 2011; Vargo, Maglio, & Akaka, 2008). From a marketing literature perspective, the consumer value is linked to a consumer's expectation of what he receives in return for what he sacrifices (Zeithaml, 1988, pp. 2–22). It is also explained as the gap between the perceived benefits and the perceived costs, which is often not useful, when there is a need to exactly understand how the value is created (Kambil et al., 1999, p. 40). To understand the term of value better, we should look deeper into customers' perceptions, in particular their experiences that they have in a consumption situation (Grönroos, 2008, p. 303). In today's fast changing competitive environment, the traditional logic of value creation is changing in terms of importance of strategic thinking (Normann & Ramirez, 1993, p. 65). The traditional isolated value creation strategy has been losing its importance in the current economic environment (Zhang & Chen, 2008, p. 242).

From 1990s and 2000s, the issue of value creation had started to gain interest in the marketing and management literature (Grönroos, 2008, p. 299). Value creation has been developing since Michael Porter first introduced linearity of a value chain with a supplier and a customer in 1985, which was later in 1995 criticised by Richard Norman and Rafael Ramirez (1993), by shifting focus on the active role of the customer. The old conviction that value for customer refers to a product, as the firm's output (value-in-exchange), shifted to value-in-use, which means that the customer collaborates in the value-generating process (Normann & Ramirez, 1993; Vargo & Lusch, 2004; Woodruff & Gardial, 1996). Furthermore, Edvardsson, Enquist and Hay (2006, pp. 230–246) explain that value does not necessarily refer to an individual product, service, or customer solution, but more on corporate identity and the customer's perception of the company.

Traditionally, value creation was seen as a model of industrial economy, where value was controlled by a provider, who through value creation made the customer's life easier, solve the customer's problem or simply satisfy his needs (Miller, Hope, & Eisenstat, 2002; Normann & Ramirez, 1993; Sawhney, Wolcott, & Arroniz, 2006; Tuli, Kohli, & Bharadwaj, 2007). The problem with such definition of value is that much attention is given to the producer and on the other hand the role of consumer is neglected (Skarzauskaite, 2013, p. 118). Nowadays, the global competition, new technologies, and changing market needs are expanding ways of value production. Successful companies are not just value creators but also inventors of value (Normann & Ramirez, 1993, p. 65). They are focusing on value co-creating system itself, where the customer has an active role in the process of new value creation (Andreu et al., 2010; Normann & Ramirez, 1993). Hence, enterprises today are paying attention to how they engage people and provide them with a different set of experience (Ramaswamy & Gouillart, 2010, p. 5).

However, it was never more onerous for companies to be innovative in value creation process as they are nowadays, due to dynamic changes in customers' needs, as well as to

an increase in quantity of know-how required in the innovation process (Filieri, 2013, p. 40). Chesbrough (in Filieri, 2013, pp. 40–41) explains that regardless of size, companies have difficulties to sustain the costs of innovation by themselves, hence they are increasingly collaborating with their external partners (other companies or customers) to share costs, knowledge, technologies, and to capture good ideas externally, not only those produced in the internal R&D departments. Advances in web technology and online communication among customers, as well as between customers and companies, enable firms to catch innovative customers' ideas and understand their needs in depth (Filieri, 2013, p. 41).

According to Ramaswamy and Gouillart (2010, p. 5), the first step managers should do in the value creation process, is to shift the company's focus from the conventional goods-services mind-set to an experience mind-set where the new value is defined on the basis of consumer experiences, rather than on processes downstream or upstream in the value chain. After the shift in mind-set is accomplished, the company can start focusing on implementation of the consumers' value, which is created when a product or service feature matches a certain customer's need at a cost considered reasonable by the customer (Kambil et al., 1999, p. 40).

## **1.2 The changing role of the consumer**

Traditional marketing strategies anticipate that customers are involved with a product or a service at the end of their value chain, which means that customers only purchase and use the product or service (Mascarenhas et al., 2004, p. 486). Therefore, in traditional marketing theories, there was always a conflict between firms and consumers, which was the result of the companies focusing solely on their internal interests, neglecting their consumer's needs (Holt, 2002, p. 70).

Recently, the expectations of informed, educated, and connected people have changed in many ways (Ramaswamy & Gouillart, 2010, p. 3). The central focus of a firm's value creation, innovation, and strategy is its customer's experience (Prahalad & Ramaswamy, 2004; Ramaswamy & Gouillart, 2010). According to Prahalad and Ramaswamy (2004, p. 2), the new co-creation of value begins with the changing role of the consumer. The new conviction in the marketing literature is that the customer should always be seen as co-producer and be actively involved in the process of value creation. This value, which is now co-created, has a strong impact on relationships between companies, its employees and customers. In the past, those relationships were more or less sales driven, which dramatically changed in favour of consumer-driven relationships (Graf, 2007, p. 491). Companies can no longer act autonomously, creating products, establishing processes, searching for sales channels and creating marketing offers without consumers' cooperation (Prahalad & Ramaswamy, 2004, p. 5). Prahalad and Ramaswamy (2004, pp. 2–5) describe consumers' changing role within five dimensions: (1) information access, (2) global view, (3) networking, (4) experimentation and (5) activism.

**Information access.** The rapid development of communication technologies and enormous amounts of information has created a new field of opportunities for companies to connect with their customers and establish an active dialogue (Prahalad & Ramaswamy 2004; Skarzauskaite, 2013). Furthermore, technology enables consumers to access information much easier than in the past and communicate with other consumers or companies wherever they are (Hoyer et al., 2011, p. 283). Not only they are now able to consume in new ways, but they also actively influence companies by developing new products or improving existing ones (Skarzauskaite, 2013, p. 116). Therefore, consumers today are able to make much more informed decisions (Prahalad & Ramaswamy, 2004, p. 2).

**Global view.** Globalisation is a common term for the emergence of a global society, where economic, political, environmental, and cultural relations have an effect across international boundaries (Oyekanmi, 2009, p. 70). With easy information access, customers are able to find information about a firm's performance, products, technologies, and prices from every part of the world. Even though some geographical limitations still exist, the boundaries are blurring very fast (Prahalad & Ramaswamy, 2004, p. 3).

**Networking.** According to Prahalad and Ramaswamy (2004, p. 3), human beings have a natural tendency to connect around common interests, needs, and experiences. The explosion of communication technologies and high-speed internet enables today's consumers to connect through thematic "online consumer communities", which are institutionalized internet-based links between consumers, who are geographically and socially diverse (Hunter & Soberman, 2010; Prahalad & Ramaswamy, 2004). Before the emergence of the web browser, people were communicating through the telegraph, telephone, and fax only if they knew a certain number or address. In contrast, today's online consumer communities, such as forums and blogs, enable consumers to post boards, which appear through the web browsers and search engines. This allows people to connect with each other, avoiding costs and spending a great amount of time (Hunter & Soberman, 2010, p. 117). Creating an engagement platform instead of corporate websites is an open opportunity for companies in just about any industry (Ramaswamy & Gouillart, 2010, p. 43).

**Experimentation.** Digital innovation processes are becoming a complex work environment, since there is a need for heterogeneous actors participating (Svensson, 2012, p. 1). Consumer online communities allow proxy experimentation – learning from experience of other consumers. More educated and informed people daily create a wide base of know-how, skills, and interests (Prahalad & Ramaswamy, 2004, p. 4). Technology-based virtual customer environments enable companies to connect better with their customers in spheres of innovation and value creation. Those environments can be in a form of a simple online discussion groups or more sophisticated product prototyping centres, which will be explained in detail in the second chapter (Nambisan & Nambisan, 2008, p. 53).

**Activism.** Through social platforms, informed and educated consumers embolden each other to share their opinions and to give their feedback to companies and other consumers (Prahalad & Ramaswamy, 2004, p. 4). Hence, today's consumer-driven environment provides numerous opportunities for consumers to share their ideas, enthusiasm, and complaints, which is of key importance in building strong relationship with suppliers (PwC, 2013).

### 1.3 The co-creation paradigm

As explained earlier, there was a strong discussion in the marketing and management literature (section 1.1) about the shift in definition of value creation, from the traditional concept, which referred to as the value-in-exchange (value as firm's output), to a modern concept that refers to as the value-in-use. The latter sees customers as collaborators in value-generating process (Normann & Ramirez, 1993; Vargo & Lusch, 2004; Woodruff & Gardial, 1996). Therefore, companies nowadays are, in contrast to the traditional ones, no longer focusing only on increasing internal efficiency, since they understood the importance of external resources integration, in order to gain new competitive advantages in today's dynamic economy (Prahalad & Krishnan, 2008; Prahalad & Ramaswamy, 2004). Furthermore, the development in technology provided consumers with access to desired amount of information and enabled them to easily communicate with other consumers and companies. Hence, consumers' empowerment caused old marketing paradigms to make way for new marketing principles (Holt, 2002, p. 88).

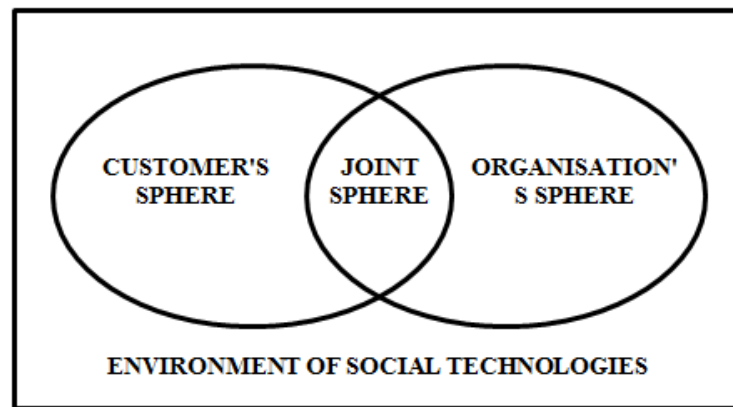
Consequently, to win new competitive advantages, it is crucial for companies to deploy a new marketing strategy (Zhang & Chen, 2008, p. 242). The answer to this need is embedded in the co-creation concept, which represents a unique and fundamentally different way of value generation between the consumer and the organisation (PwC, 2013). Due to its perceived importance, marketing literature treats it as a new tool for increasing customer satisfaction and product success (Pini, 2009, p. 61).

But how the new value-in-use, which is created through co-creation process, really arises? Who creates it? On one hand Grönroos (2008, p. 304) describes the co-creation as a set of three elements (spheres), which jointly lead to the final outcome: (1) the customer's sphere, (2) the organisation's sphere and finally (3) the joint sphere or the value-in use. Moreover, marketing literature also discusses co-creation from a process based perspective, as an interaction between three processes: (1) the customer-value creating process, (2) the supplier-value creating process and (3) the encounter process (Skarzauskaite, 2013, p. 119).

A simple illustration of co-creation process is provided in the Figure 1, where it is shown how both the organisation and the customer bring value to common value creation (Grönroos, 2008, p. 304). According to a goods logic, in the process of creating value-in-use, the role of supplier is providing customer with resources (goods, services, information

etc.), while the customer is the value creator and responsible to use his personal skills and resources provided by the supplier in order to generate value (Grönroos, 2008, p. 308). Finally, the new product or service has value only if it meets the customer's needs, which is, if the consumer's benefit justifies the price charged (Mascarenhas et al., 2004, p. 490).

*Figure 1. Process of co-creation*



Source: M. Skarzauskaite, *Measuring and managing value co-creation process: Overview of existing theoretical models*, 2013, p. 119.

The heterogeneousness of contributions resulted in the complex interpretations of co-creation, which were both studied in the product and service context (Saarijärvi et al., 2013, p. 7). Ramaswamy and Gouillart (2010, p. 4) for example define co-creation as: “the practice of developing systems, products, or services through collaboration with customers, managers, employees, and other company stakeholders”. Furthermore, Lusch and Vargo (2006, p. 11) explain co-creation as co-production of solution offerings through shared inventiveness, problem solving, co-design, or shared implementation between the customers and the company. Also Etgar (2008, p. 98) understands co-production as: “consumer’s participation in performance of various activities realised in one or more production process”.

On the basis of different attempts to define the term of co-creation, Payne, Storbacka & Frow (2008, p. 83) conclude, that the process of value co-creation include four general elements: (1) active involvement between at least two participants, (2) the integration of resources which created mutually beneficial value, (3) the willingness to interact and (4) a choice of potential forms of collaboration.

### **1.3.1 The historical development of an alternative way of value creation**

Ramirez (1999, p. 50) in his work stated: “Fuchs (1965, 1968) had the merit to be the first that explicitly considered the consumer as a factor of production.” However, tracing the roots of the co-creation concept, we also have to consider von Hippel and his work on innovation systems. According to Hippel (1976, p. 32), in the business of scientific



instrument manufacturing, product users are the main source of new product development. With his work, he probably started an open discussion about the consumer being the main source of innovation.

The first articles focusing on the co-creation phenomenon and its process were published in the 1990s (Skarzauskaite, 2013, p. 117). The authors were exploring the consumers' active participation in product and service innovation process with the company (Ciccantelli & Magidson, 1993; Gilmore & Pine, 1997; Herstatt & von Hippel, 1992; Urban, Hauser, & Qualls, 1997). Prahalad and Ramaswamy, who first noticed and defined the term co-creation, have been, since 2000, strongly contributing to the marketing literature in the context of perspective shift of enterprises in accepting the consumers as active co-producers, rather than passive audience. They stated that the role of the consumer changed from being isolated to connected, from being unaware to connected and finally from being passive to being active (Prahalad & Ramaswamy, 2004, pp. 1–17).

Vargo and Lusch (2004, p. 1) researched the phenomenon of co-creation further by introducing the new service-dominant logic (S-D logic), which is the opposite of the traditional goods-dominant logic (G-D logic), that assumes service provision to be more fundamental for economics exchange than goods provision. Furthermore, they emphasised the importance of intangible assets in the value creation process, such as knowledge and customer-centricity (Vargo & Lusch, 2004, p. 1). They also defined consumer as an operant resource – a resource that is capable of acting on other resources. In other words, the consumer is seen as an active collaborative partner, who co-creates value with the firm, rather than being just a consultant or a source of ideas (Vargo & Lusch, 2004, p. 6).

Vargo and Lusch (2004, pp. 1–17) introduced the new paradigm which was followed by other authors who were also researching the increase in importance of intangible assets, such as relationships, active involvement of consumer and collaboration within business areas, that have caused a shift from the goods-dominant paradigm to a paradigm which focused on relationship marketing and customers as co-creators of value (Graf, 2007; Normann & Ramirez, 1993; Vargo & Lusch, 2004; Woodruff & Gardial, 1996). At this point, the consumers gained a new role in the process of value creation.

To sum up, recent marketing and management literature argue that value creation has changed, since it is aimed at collaborating with the consumer through their active participation on different online community platforms and social network sites (Grönroos, 2008; Mascarenhas et al., 2004; Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004). Companies have understood that if they successfully tap into their customers' feedback and include them efficiently in the value creation process, they will be able to deliver more sophisticated products, create in-depth customer experiences and improve their competitive position in the market (PwC, 2013).

### 1.3.2 Key benefits

For the survival and success of a firm, it is of key importance to build and maintain good relationship with its customers, and the best way to achieve that is to satisfy their needs, listen to their problems, and cultivate their trust (Lee, Chu, & Chao, 2011, p. 1272). Therefore, according to Mascarenhas, Kesavan, & Bernacchi (2004, p. 486), co-creation is a new strategy of enhancing the customers' satisfaction, ensuring the customers' delight and finally, reaching bigger market share and profitability. Nambisan and Nambisan (2008, p. 53) are persuaded that companies who tend to ignore the broader impact of the consumers' experience are overlooking an important factor of their business success. The new mind-set toward the consumer co-creation has important implications for both, the company and consumer (Hoyer, 2011, p. 291).

Engaging the consumers in value creation is an important strategy when the firm tries to satisfy personalized demands or simply gain new competitive advantages (Zhang & Chen, 2008, p. 242). Moreover, innovative ideas, which are generated in the process of co-creation, can help companies to closely mirror its customer's needs (Hoyer et al., 2011, p. 283). In general, by successfully managing the co-creation process, the company can build two crucial sources of competitive advantage. The first refers to an increase in productivity, which is a consequence of an increase in efficiency, and the second refers to an improvement of effectiveness (Hull, 2004; Payne et al., 2008). Efficiency is increased mainly through reduction of the operational costs, while effectiveness is improved through innovativeness, increase in consumer benefit, new capabilities, etc. (Hull, 2004; Payne et al., 2008). Some beneficial outcomes organisations can tap while co-creating also new product ideas, innovative design concepts, attractive promotion methods, innovative product launchings or honest customer feedback on product, or service performance, etc. with their customers. According to Ramaswamy and Gouillart (2010, p. 15), every company that successfully engages its consumers in the process of value creation, should be able to harness the four key powers of co-creation, which are: (1) the increase in returns and strategic capital for the company, (2) lower level of risk and costs for the company, (3) new experiences of value for consumers, and (4) lower level of risk and costs for individuals.

On the other hand, the consumer co-creation can result in the consumers' positive attitude toward a certain product or service in terms of purchase behaviour, willingness-to-pay, and an increase in brand loyalty (Franke, Keinz, & Steger, 2009; Mathwick, Wiertz, & Ruyter 2008). According to Nambisan and Nambisan (2008, p. 53), the customer participation in virtual environments (online platforms), is one of the most common forms of the customers' involvement in co-creation process that can strongly shape the relationship between the customer and the company, company's products, or brand. Co-created outcomes, such as new product design, usually create higher added value for the customers, which increases commercial attractiveness and product differentiation at the market (Magnusson, Matthing, & Kristensson, 2003; Song & Adams, 1993). Furthermore,

consumers can expect a new, exciting experience of value (Auh et al., 2007; Ramaswamy & Gouillart, 2010). According to Nambisan and Nambisan (2008, p. 55), in virtual customer environment, this experience can emerge as pragmatic, sociable, usable, or hedonic. The type of experience emerged, depends on what role the customer has in co-creation process (Nambisan & Nambisan, 2008, pp. 54–56). Below, all four types of experience are described.

- **Pragmatic experience** emerges when the product-related information goal is realised through interaction with peer customer or company representatives or joining product knowledge centres.
- **Sociability experience** emerges when social and relational aspect is realised, since the customer is a member of a virtual group or community.
- **Hedonic experience** refers to a mental stimulation and entertainment, source of pleasure and enjoyment, which emerges when the customer participates in co-creation process.
- **Usability experience** emerges when the customer accomplishes co-creation task through a complexity of information technology.

Since all four types of customer experience are compatible and can arise in different combinations, the companies have to carefully examine the environment, understand their market's needs and identify which customer experience profile is crucial to tap for a successful realisation of the co-creation process (Nambisan & Nambisan, 2008, p. 56).

Since there are various positive referrals linked to co-creation, this represents the basis for our understanding of how co-creation can positively affect the customer's loyalty. Such added value for customers accompanied with reachable and inexpensive information technologies alongside can explain the rapid growth of the company's co-creation practices in Unites States and Europe (Nambisan & Nambisan, 2008, p. 53).

### 1.3.3 A typology and forms of co-creation

As seen in the section 1.2, unlike marketing strategies of product-centric companies, which assume that the customers get involved in value-chain mostly at the end as buyers and users of the products or services, the recent view is that consumers can participate at any stage of the value creation chain. Those possible stages are: (1) ideation, (2) concept development, (3) prototype development, (4) design development, (5) prototype-design testing, (6) packaging-label testing, (7) manufacturing, (8) ad testing, (9) product/service bundle testing, (10) product/service price-bundle mix testing, (11) product financing bundle testing, (12) national launch and press-release process or (12) customer service and feedback (Mascarenhas et al., 2004, p. 488).

Even though there are many attempts seeking to identify a clear distinction between different co-creation forms, there is no precise delineation between them. Authors are

trying to build different co-creation typologies in order to fully understand the customers' engagement, but they are lacking the distinction of various types of customer involvement. The main reason is the complexity of the co-creation concept. In this section, I describe three different approaches, which are trying to create an understanding of various co-creation forms.

The first framework, provided by Lawer (2006, p. 3), classifies types of co-creation in relatively broad categories. The classification was designed in order to help the companies to determine which form of value innovation with their customers is the right in their particular context of existing capabilities and resources. For that reason, Lawer identified eight distinctive co-creations forms, which are presented in the Table 1: (1) Product "finishing", (2) new product design and development (leader user), (3) existing product adaptation (customer feedback), (4) mass customisation, (5) open community ideation, product design and development (6) new service design, (7) real-time marketing and service adaptation and finally, (8) personalised experience value and knowledge co-creation. These types of co-creation Lawer (2006, p. 1) differentiate mainly on the basis of the following eleven key factors:

- **The nature of value created:** whether the co-created value is tangible (product) or intangible (services or experience).
- **The benefit of value created:** who is primary beneficiary in the co-creation process.
- **The explicitness of the customer benefit:** whether the customer's benefit is explicitly determined or it is simply the part of value-exchange process.
- **The timing of value creation:** in which stage of value-chain the customer is involved.
- **The degree of customer competence:** the degree of the customer's skills required.
- **The intensity of the firm-customer interaction and the customer involvement:** the frequency and the level of knowledge exchanged between the customer and the firm.
- **The number and types of customers involved:** who the participants in the value co-creation process are (lead users, a single customer, or all customers).
- **The customer's role in the value-creation process:** whether the customers are active or passive in the process of value creation.
- **The nature of customer knowledge exchanged:** whether the exchanged knowledge between the customer and the firm is expressed or latent.
- **The degree of customer-customer interaction:** whether the co-creation happens amongst peer users, usually in virtual environments or in the framework of the innovation process of a firm (in the context of the direct management of the co-creating process).
- **The ownership of the intellectual property created:** whether there is no ownership of the co-creation outcome or the firm takes ownership.

Table 1. Eight Styles of Co-creation

<b>Form</b>	<b>Description</b>	<b>Example</b>
Product “finishing”	Final customer is the final creator of value in the value chain.	IKEA
New product design and development	Limited numbers of expert customer participate in development of new product.	Lego Mind storms lead user project
Existing product adaptation	The company encourages customers to share their opinion in order to improve a product.	Microsoft Knowledge base
Mass customisation	A company provides options for customers to personalise a standard product or a service.	BMW
Open community ideation	Within digital environment, through an open community, customers create solutions to R&D problems.	Firefox
New service design	Similar to new product design and development, with a difference of involving more consumers in the process of innovation.	TeliaSonera - testing of new mobile phone services
Real-time marketing and service adaptation	Individual customer via digital technology in real-time, through high level of interaction change the value presented by the company.	FedEx
Personalised experience value and knowledge co-creation	Customer interact with the firm within an experience environment (the value created is not a service/ product, but an individual experience).	iTunes

Source: C. Lawer, *Eight Styles Of Co-Creation*, 2006.

The second classification concentrates more on deconstructing the co-creation concept into more discrete forms. It is provided by Frow, Payne, & Storbacka (2008, p. 3), who have not only identified twelve co-creation forms, but also the whole conceptual framework for co-creation design, with intent to help firms focusing on more innovative range of co-creation opportunities. Their typology of co-creation forms is presented in the Table 2.

Table 2. A Typology of Forms of Co-Creation

<b>Form</b>	<b>Description of co-creation form</b>	<b>Example</b>
Co-conception	Collaboration on product concept innovation (complex technological solutions)	Development of Airbus 380
Co-design	Sharing design perspectives (customised design solutions)	Dell computers, Adidas shoes
Co-production	Jointly production of the firm's offering	IKEA self-assembly
Co-promotion	Collaboration on promotional activities related to a specific product, brand or other entity	BMW brand community
Co-pricing	Collaboration on pricing decisions	Radiohead "pay what you want" downloads
Co-distribution	Collaboration on service and goods distribution, usually for end use consumption	P&G suppliers' shared consolidation
Co-consumption	Collaboration on usage (actors employ their resources as consumers, to determine and enhance their own consumption experience)	Wet Seal clothing online users
Co-maintenance	Sharing the maintenance of core products (example: customers report on damaged trolleys)	Tesco's hot line

table continues

continued

<b>Form</b>	<b>Description of co-creation form</b>	<b>Example</b>
Co-outsourcing	Collaboration with suppliers, customers or competitors in outsourced solutions	www.elance.com
Co-disposal	Collaboration in disposal tasks	Columbia Sportswear's use of recycled boxes
Co-experience	Actors' integration of resources over time across multiple encounters creating a shared experience that provides opportunities to co-experience at specific life-stages	Toddler Club, Baby Club
Co-meaning	Interaction between actors producing new meanings and knowledge through multiple encounters over time	On-line gamer's shared meanings

Source: A. Payne, K. Storbacka and P. Frow. *Managing the Co-Creation of Value*, 2008, p. 85.

Unlike both previous frameworks, Nambisan and Nambisan (2008, p. 54) have identified six active roles of consumers in virtual environment, described in Table 3. (1) product conceptualiser, (2) product designer, (4) product tester, (5) product support specialist and (6) product marketer. Depending on each customer's role, different customer experiences explained in section 1.3.2 can emerge.

One thing all three co-creation frameworks have in common is that regardless different roles of customers and consequently different types of co-creation, all forms of customer engagement in value creating process are beneficial for the companies. However, there are some amongst them that are more relevant for some companies than to others (Nambisan & Nambisan, p. 54). On the basis of eleven key factors, listed by Lawer (2006, p. 1), the firm can adapt the appropriate style of co-creation in order to generate the desired outcome. However, different styles can somehow overlap, even though each of them requires different number of participants, pre-conditions, and strategies (Lawer, 2006, p. 4).

Table 3. The types of the consumers roles in virtual environments

<b>Role</b>	<b>Customer contributions</b>	<b>VME<sup>1</sup> technologies</b>	<b>Customer experience</b>	<b>Typical example</b>
Product conceptualiser	Suggestions and ideas for new products and for product improvement	Discussion forums, knowledge centres, blogs	Pragmatic, hedonic	Ducati's Tec Café virtual space
Product designer	Specification of new product design: inputs on product features and design trade-offs	Virtual product design and prototyping tools, messaging tools	Pragmatic, usability, hedonic	BMW's Customer Innovation Lab
Product tester	Identification of product design flaws; input on product prototypes	Virtual product simulation tools, messaging tools	Pragmatic, usability	Volvo Concept Lab
Product support specialist	Delivery of product support services to peer customers	Discussion forums, knowledge centres	Pragmatic, sociability	Microsoft's MVP Program
Product marketer	Diffusion of new product information; shaping peer customer's purchase behaviour	Discussion forums, virtual product simulation tools	Pragmatic, sociability	Samsung's Virtual Product Launch Centre

Source: S. Nambisan and P. Nambisan, *How to Profit from a Better "Virtual Customer Environment"*, 2008, p. 53.

### 1.3.4 Critical factors that affect the successful realization of co-creation

In order to exploit co-creation's potential, the companies and the customers must pay attention to number of key factors responsible for successful realisation of co-creation activity. Both parties must match up all resources and activities in order to properly manage the process of value co-creation (Andreu et al., 2010, p. 243). Therefore, the companies often have difficulties with developing skills and processes needed for effective

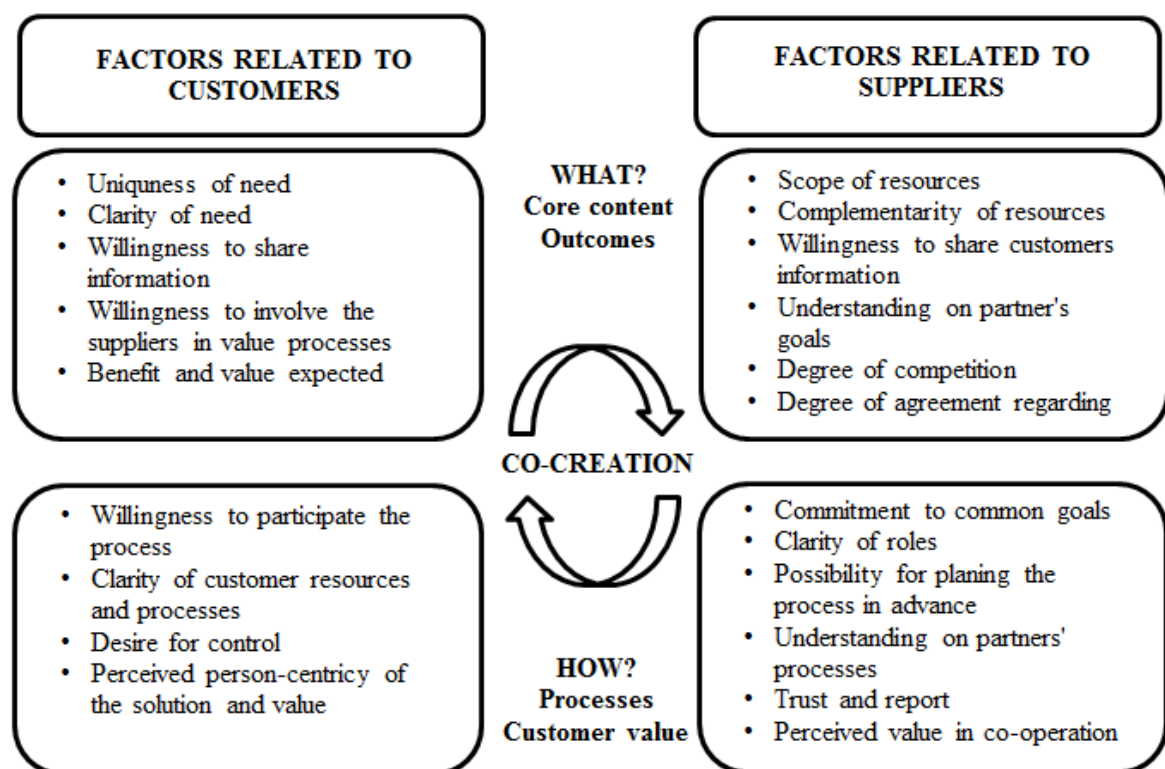
<sup>1</sup> Nambisan and Nambisan (2008, p. 53) use the abbreviation VME, which stands for term virtual customer environment.



delivery of solution – they are failing to integrate their consumers in co-creation activities (Hakanen & Jaakkola, 2012, p. 594).

In two separated studies, Auh et al. (2007, pp. 359–370) and Hakanen and Jaakkola (2012, pp. 593–611) identify crucial factors responsible for realising an effective co-creation within service context (Auh et al., 2007) and in customer-focused solutions within business networks (Hakanen & Jaakkola, 2012). While Auh et al. (2007, p. 361) showed that the level of communication between the customer and the firm, client expertise, customer affective commitment toward the company, and interactional justice<sup>2</sup> are likely to boost co-creation activity in the service context, on the other hand, Hakanen and Jaakkola (2012, p. 605) highlighted both, the customer related and supplier related factors, to be of key importance for successful realisation of co-creating approach. Those two separate groups of key factors related to customers and suppliers are listed in the Figure 2.

Figure 2. Factors that affect the co-creation of integrated solutions within business networks



Source: T. Hakanen and E. Jaakkola, *Co-creation customer-focused solutions within business networks: a service perspective*, 2012, p. 605.

While Hakanen and Jaakkola (2012, pp. 593–611) have been focusing on factors related to

<sup>2</sup> Masterson, Lewis, & Goldman (in Auh et al., 2007, p. 362) define **interactional justice** as: “fairness judgments based on the quality of the interpersonal treatment a customer receives during a service encounter”.

consumers, as well as those related to suppliers, Prahalad and Ramaswamy (2004, pp. 23–31) identified four critical factors, which companies would have to consider for successful implementation of co-creation process. They name them “key building blocks”: (1) dialogue, (2) access, (3) risk assessment, and (4) transparency. All four elements can be combined in order to better engage customers as active co-creators of value (Prahalad & Ramaswamy, 2004, p. 31). Those elements affect the co-creation process, as explained below.

Any company, which is serious about leveraging customer service as a competitive strategy knows, that building satisfaction with every single contact is crucial (Daley, 1996, p. 13). Daley (1996, p. 13) stresses that Socratic method, which demands that one talk less and listens more, should be applied by all companies. Furthermore, he explains that this approach not only shows deep respect for the customer’s needs and problems, but also reveals the belief that every customer is unique (Daley, 1996, p. 13). A **dialogue** is a crucial element in the co-creation as the whole market is seen as a set of conversations or interactivity and deep engagement between customers and companies (Levine, Locke, & Searls, 2001; Prahalad & Ramaswamy, 2004). According to Prahalad and Ramaswamy (2004, pp. 23), the dialog is more than just listening to the customers, since it entails empathic understanding built around the customer’s emotional, social, and cultural context of experience. The dialogue which is established in co-creation process differs from other dialogues since it requires three main elements. Firstly, it focuses only on issues that interest the customers and the company, secondly, it requires a forum in which the dialogue can occur, and finally, it demands implicit or explicit rules of engagement as well, in order to make a productive interaction (Prahalad & Ramaswamy, 2004, p. 23). The dialogue encourages sharing of knowledge, allows better understanding between companies and consumers, and provides the value creation process with the customers’ view of value (Prahalad & Ramaswamy, 2004, p. 31).

To successfully carry out the dialogue, an **access** is an important factor, which is the second “key building block” for the co-creation process. While traditional focus of the company was to create and transfer ownership of products to customers, the focus nowadays shifted to the customers’ access to desirable experience, thus not necessarily ownership of the product (Prahalad & Ramaswamy, 2004, p. 25). Access is a broader definition and does not consider only the access to information and expertise but also involve access to on-demand resources, such as computing and access to a lifestyle. The automobile leasing for example enables the consumers to experience the lifestyle of a car without owning it (Prahalad & Ramaswamy, 2004, p. 25). By focusing on ownership, as well as on the access to experiences, the companies can benefit from broader business opportunities (Pharald & Ramaswamy, 2004, p. 31).

The third “key building block” refers to the **assessment of risk**, or the probability of harming the customer. Traditionally, it was assumed that the firm is responsible for the risk, since it manages it more successfully than the customers could. Today, there is a

growing debate around the subject of risk, as the customers are active co-creators, which makes them responsible for the risk that is shared with the companies. As a result, the customers expect from the companies to inform them fully about the risk, which enables them to assess personal and social risk, linked to the certain product or service (Prahalad & Ramaswamy, 2004, p. 27–29).

Finally, **transparency of information** represents the last “key building block”, crucial for the companies, which tends to better engage the customers as collaborators. In the field of information management, business ethics, and information ethics, the term “transparency” refers to forms of information visibility that are reduced by eliminating obstacles. In fact, it refers to the possibility of accessing information (Turilli & Floridi, 2009, p. 105). Traditionally, there has been an information asymmetry between the companies and the consumers, which is now increasingly disappearing, due to the advances in the web technology, media channels, and cell phones. It enables different forms of collaboration among the customers, as well as between the customers and the companies (Filiéri, 2013, p. 41). The information about the price, technologies, costs, and profit margins is no longer unclear (Prahalad & Ramaswamy, 2004, p. 30). Transparency of information establishes trustful relationship between the customers and the company and enables the business to collect the customers’ ideas and knowledge (Filiéri, 2013; Prahalad & Ramaswamy, 2004).

## **1.4 Best practice in co-creation process in various industries**

Ramaswamy and Gouillart (2010, p. 7) postulate: “Firm-centric paradigm of the conventional enterprise has served us well for many years, but it is rapidly becoming obsolete.” Same authors call the new co-creative enterprise a “growth engine”, since it has an important advantage of minimising the costs by using new information technologies (Ramaswamy & Gouillart, 2010, p. 7). With the new co-creation mind set, which can be seen with companies, such as Microsoft, Cisco, Nokia, Volvo, or Nike, the traditional distinction between production and consumption is not clear anymore. Even though the activity chain remains the key in creating goods and services, customers, suppliers, partners, and employees do not limit themselves by just receiving what is being offered by enterprise, but they desire to be personally engaged in value creation (Ramaswamy & Gouillart, 2010, p. 5). Co-creation process can be seen in variable contexts, which was discussed in the section 1.3.3 (Bolton & Saxena-Iyer, 2009, pp. 91–104).

According to Ramaswamy and Gouillart (2010, p. 35), the core principle of co-creation is “engaging people to create valuable experiences together while enhancing network economics”. For companies regardless of industry, the benefits of engaging consumers in product development (section 1.3.2) are increasingly visible. However, once a company decides to embrace new strategy of value creation, it starts a complete transformation, which requires development of new techniques, innovation approaches as well as marketing and information technologies (Ramaswamy & Gouillart, 2010, p. 7). The key driver for co-creation strategy is not only the adoption of co-creation practices by

competitors, but also the empowerment of the customers through new internet technologies. Furthermore, co-creation methods can be initiated by different departments of the company (Ramaswamy & Gouillart, 2010, p. 37). Therefore, it is not always the marketing department trying to launch a new customer experience program, but also HR department building a new employee experience, supply chain enhancing salesforce experience, IT department promoting virtual platforms or financial department and general manager with the aim to improve competitiveness and brand awareness (Ramaswamy & Gouillart, 2010, p. 37). Finally, co-creation is an ideal opportunity for talented individuals to show their talent or to get a prize in a form of money, shared revenue or a job (Business Innovation Observatory, 2014, p. 2).

In the marketing literature, we can find several case studies, describing and exploring how enterprises have been successfully involving customers in their innovative co-creation process, usually through a set of engagement platforms, such as online communities, social network sites, crowdsourcing techniques, or contests. Those different approaches, which are the basis of a co-creation process, will be explained in the section 2.2 (Gouillart & Ramaswamy, 2010; Hoyer et al., 201; PwC, 2013). In the following, few best known examples of co-creation practices from different industries will be discussed.

#### **1.4.1 Computer technology industry – Dell’s IdeaStorm**

The development of the internet boosted the number of social interaction technologies and conversations online (Ramaswamy & Gouillart, 2010, p. 42). However, there are still just few companies, which would efficiently establish interactive electronic dialogue with their users’ communities, as one way of getting closer to their customers (Alavi, Ahuja, & Medury, 2011; Ramaswamy & Gouillart, 2010). For companies, it should be of a great interest to transform their official web pages into interactive virtual platforms, since this provides them with a real insight in their customers’ minds (Ramaswamy & Gouillart, 2010, p. 42).

Dell is one amongst those companies that have successfully adopted the new conversation method. IdeaStorm, created in 2007, is a virtual interaction centre for their customers who collaborate in development and enhancement of Dell’s products and services by posting their thoughts online (Alavi et al., 2011, p. 38). The initiative for such Dell engagement platform started soon after Jeff Jarvis, a Dell customer, in 2005 posted a blog entry called “Dell Hell” complaining about Dell’s poor customer service. The Dell Hell blog was soon used by thousands of frustrated customers and Dell stock price began to decline sharply in late 2005. The blog conversation was a strong indicator of Dell’s problems and even though Dell at that time already had some customer satisfaction and service quality programs in place, they used to be too firm-centric (Ramaswamy & Gouillart, 2010, p. 45). In comparison to the old customer service programs, the IdeaStorm website enabled customers to post their ideas, which were later voted by other participants. Dell responded to the most popular ones and implemented many of them (Ramaswamy & Gouillart, 2010,

p. 44). One of such implementations was a new laptop in 2008, which has a light-up keyboard, a longer life battery, and faster connection technology (Ramaswamy & Gouillart, 2010, p. 46). Michael Dell, the CEO of Dell Inc., was well aware that if they had not enabled customers to share their thoughts at IdeaStorm and co-create with Dell, those customers would have posted their complaints somewhere else, for instance on the CNET or Dell Hell (Ramaswamy & Gouillart, 2010, p. 42). With launch of IdeaStorm, negative posts about Dell have dropped from 49% to 22%.

#### **1.4.2 Fast moving consumer goods industry – Unilever’s Axe Twist**

The increasing numbers of crowdsourcing global communities of enthusiastic, skilled and intelligent consumers, who collaborate with the companies to find innovative solutions, are boosting business growth significantly (Needham & Medeiros, 2008, p. 1). Hence, crowdsourcing has become a sort of business accelerator (Baker, 2013). Taking in account that for the fastest moving consumer goods companies, 80% of innovation is incremental, the firms should embrace their consumers’ ideas (ideas outside the company) as an important part of innovation process (Needham & Medeiros, 2008, p. 1). Unilever and P&G are two multinational companies, which are well aware that a key to success is in belief that efficient consumer marketing can only come with understanding of the target customers and providing them with what they need. As a result they are both regularly engaging their customers in innovation process, in order to develop the most appealing products (Needham & Medeiros, 2008, p. 2). For instance, in 2008 approximately 50% of P&G’s innovative ideas derived from the consumers, suppliers, and third parties (Needham & Medeiros, 2008, p. 1).

The most known example of Unilever’s use of innovative co-creation approach was built around the launch of Twist, a new man’s fragrance in global Axe brand in 2008 (Wong, 2010). Unilever’s goal was to co-create various product concepts, based around the word “fresh” (Parker, 2010). To do so, a three-stage methodology has been developed. First of all, an online social media monitoring took place which provided Unilever with different aspects of “freshness” that inspired their future innovation process. The next step was a co-creation workshop, held in New York, where 16 target adolescents, Axe global marketing team, a perfume expert, and an advertising agency worked together in order to discuss further the development of Axe product. This helped Unilever’s team to get an ongoing feedback about strong ideas, which should have been developed further. Finally, the third phase in developing the Axe’s product was conducted through the internet in a form of online focus groups with their target consumers, which gave Axe team the opportunity to test if the idea, which derived from the workshop in New York, would have been effective in the real environment. The co-created concept reached excellent scores in online concept testing and later through the market. The Unilever’s co-created project was a big success, as the Twist product was successfully launched (Muscroft, 2010).

Since June 1<sup>st</sup> 2013, Unilever has entered a partnership agreement with a big co-creation

community eYeka, in order to expand crowdsourcing activity across Asia-Pacific, Middle East, Russia and South Africa. Even before this agreement, they have been successfully collaborating on various projects for Unilever's well-known products Cornetto, Lipton, Lux, and Clear. Unilever sees the act of inviting creative and enthusiastic consumers to share their ideas as an opportunity to re-invent the existing products or invent new ones (Baker, 2013).

#### **1.4.3 Apparel and accessories industry – Nike**

Nike, traditionally product-centric organization, has become one of the companies that strongly embraced the co-creation marketing strategy, since Nike's managers see products as a starting point of the consumer's experience, rather than the end point. For Nike, the online engagement platform represents a great opportunity in establishing strong relationship with its customers all around the world (Ramaswamy, 2008, p. 10).

One example of Nike's co-creating approach (in partnership with Google) is the establishment of social networking site joga.com in 2006 (Ramaswamy, 2008, p. 9). The site, which is today available in 14 languages, was an example of thematic community that enabled participants to share personal and football experiences. In addition, it enabled members to create their own profiles, choose their favourite players, and share their opinion about football (Nike, 2006). With one million participants, Nike had an excellent opportunity to research its target customers' characteristics (Ramaswamy, 2008, p. 9).

In addition to generate products, which would add value to customers, Nike has, as a pioneer in the field, tapped into mass customization, which is one type of co-creation (see section 1.3.3). NikeiD web site was launched in 1999 in order to enable its loyal customers to design their own pair of shoes. Today, beside shoes, Nike offers all type of customized clothing apparel and accessories (Dencken, 2010).

Both mentioned examples of co-creation practice, along with several others, have in common various benefits for the Nike Company. Firstly, the co-creation approach enables Nike to understand its customers and to faster generate new ideas that respond to the existing customers' needs. Secondly, in order to find an appropriate solution for those customers' needs, Nike can easily tap the collective creativeness stream of its customer base that is willing to participate in co-creating of new value, while networking with other participants, who are passionate about sports. Last but not least, the co-creation activities help Nike to reduce the risk of product failure (Ramaswamy, 2008, p. 10).

#### **1.4.4 Pharmaceutical industry – GlaxoSmithKline's Alli product**

One of the most powerful co-creation platforms is online community, where a private group of invited customers shares experience of a product with a firm. Such community is beneficial for both, the company and the customers, since it enables the firm to get a deeper insight in customers' needs, while customers gain unique access to some of

company's resources (Gouillart & Ramaswamy, 2010, p. 60). The pharmaceutical company GlaxoSmithKline (here forth GSK) successfully used this approach in launching of a new weight loss pill Alli in 2007 (Gouillart & Ramaswamy, 2010, p. 60). The Alli product, similar to other weight-loss products, was not a magic pill that would have worked without a low-calorie diet and a regular exercise. Moreover, ignoring those facts, customers would have risked severe diarrhoea or leakage. To avoid those negative side effects, GSK decided to build a strong customer community of those customers from whom the drug worked and who were willing to change their lifestyle in order to spread a word-of-mouth recommendations, personal experiences, and support the other community participants (Gouillart & Ramaswamy, 2010, p. 61). To reward active members, GSK enriched Alli online community with useful platform features such as tips for healthy eating and individual tailored action plan that enables customers to track their weight-loss progression (Gouillart & Ramaswamy, 2010, p. 62). After Alli was launched, GSK reported \$156 million in Alli sales in the first month and a half. In addition, more than two million product packs were sold in the first four months (Gouillart & Ramaswamy, 2010, p. 63).

In Alli's case, GSK decided to engage its target customers in co-creation of brand's positioning and enabled them to communicate with one another, which was proven to be a good strategy (Gouillart & Ramaswamy, 2010, p. 39). Due to the success of Alli's online community, GSK soon launched an advertising campaign where the first users were asked to make a short YouTube video, explaining their experience with the Alli product.

## **2 THE USE OF CUSTOMER CO-CREATION APPROACHES IN THE AUTOMOTIVE INDUSTRY**

Despite large variation across countries, the capital intensive automotive industry in general represents just a small part of the total size of OECD economies with regard to value added and employment (OECD, 2010, p. 6). However, it is an important industry, which employs a big and connected network of people worldwide in auto and auto parts manufacturing, supplies manufacturing, financial service, after sales, etc. In 2012, there were around 77 million vehicles sold worldwide (50 million cars and 25 million commercial vehicles). Three most important markets today are China (19 million vehicles sold in 2012), United States (15 million vehicles sold in 2012), and Europe (14 million vehicles sold in 2012) (ICCT, 2013, p. 3; Polk, 2012).

### **2.1 Overview of automotive industry in the last decade and challenges for the future**

Financial crisis in 2007–2009 have severely affected global automotive industry. Due to the parallel movement of overall business cycle and economic activity in the automotive industry, the latter was one of the sectors which have been hit the most by the recession.

The correlation was especially strong in automobile-producing countries such as United States, Japan and Germany, but the damage spread all over the world (OECD, 2010, p. 6). Since late 2008, slowing global economy and declining consumer confidence resulted in a fall of new cars sales in most markets for approximately 20% from September 2008 to January 2009 (Deloitte, 2009; OECD, 2010). In Europe not all market segments have been affected equally by recession, since the small car segment fall less than the other segments (OECD, 2010, p. 12). Global competitive and financial pressures led to smaller production, which caused widespread job losses in North America, Western Europe and Japan (Deloitte, 2009, p. 1). The decline in sales also resulted in excess capacity especially in North America and Europe (Deloitte, 2009, p. 2).

Despite challenging environment of recent years, the automotive industry reached numerous outstanding advancements such as safer, fuel efficient, and technically advanced cars. In general, car quality has been notably raised without an increase in price. As the crisis is slowly subsiding, the first short-term projections for 2015 are approximately 92.2 million cars sold worldwide and a deep transformation of automotive industry alongside (Deloitte, 2009; Polk, 2009). Short-term trends in car sales will vary notably across high-income and low-income countries. For instance, in Europe car market is quite saturated and therefore it is likely to be driven by a slow increase in vehicle *per capita*. However, in France and United Kingdom this increase will be faster than in some other countries in Europe due to constant increase in population. On the other hand, for example in China, a combination of low vehicle ownership *per capita* and rising level of income are likely to boost car sales rapidly (OECD, 2010, p. 22). The largest purchasing segment by 2020 will be customers buying a car for the first time (Deloitte, 2009, p. 9). Hence, in short term, China will probably overtake the United States to become the biggest automotive market in the world (OECD, 2010, p. 22). Moreover, in the medium term, manufacturers around the world will not face the same level of demand. For those with excess capacity, the ability to maintain and compete for market share at home markets and export markets (especially China) will be of key importance for survival (OECD, 2010, p. 26).

In last decade, automotive industry has been affected by four different types of external forces: (1) environmental challenges, (2) growing urbanisation, (3) changing consumer behaviour, and finally (4), growth and globalisation. All those four groups of forces will create a complexity in automotive industry also in the future (KPMG, 2013, p. 12).

**Environmental challenges.** One of the biggest questions automotive industry is facing today is which technology will be the most efficient – the hybrids and internal combustion engine technology (ICE hereafter) today and also ecological enough not to be criticised for its negative contribution to global warming (KPMG, 2013, p. 14). Recently the optimism over electric vehicles has decreased notably, since automakers realised it will take about six to ten years before they will become more efficient than the existing ICE technology (KPMG, 2013, p. 13). Despite considerable investments in R&D for e-technology, such as pure hybrids, plug-ins, fuel cells, and battery-powered vehicles, a greater focus now is



placed on optimising ICE technologies (downsizing).

**Growing urbanisation.** The world's population in mid-2013 was estimated to be around 7.2 billion and is projected to increase to 8.1 in 2025 (United Nations, 2013, p. 15). In developed countries, a big part of population lives in cities, which are becoming increasingly overcrowded (Deloitte, 2009, p. 13). In addition, traffic congestion, driving restrictions, high charges for roads and parking, along with stricter rules on CO<sub>2</sub> emissions contribute actively to smaller fuel-efficient vehicle and also to implementation of alternatives to car ownership, such as car sharing or pay-on-use, also called "mobility-as-a-service" (KPMG, 2013, p. 20). The new rental transportation method can be a profitable solution for car manufacturers, especially in crowded cities, via provisions of added-value services, for instance apps for mobile phones (KPMG, 2013, p. 23).

**Changing customer behaviour.** In the next decade, the automotive industry will face the most dramatic changes in customers buying preferences. The customers in emerging markets will tend to buy luxury cars and embrace green technology, while the customers at mature markets will require their vehicle to be connected to their mobile device and computer (Deloitte, 2009, p. 8). The latter indicate the importance for automakers to work closely with the main high tech players to combine their expertise in order to develop advanced features, which will meet the customers' needs (Deloitte, 2009, p. 12). However, increasing demands for a safe, high-quality and reasonably priced cars will be common for both emerging and mature markets. This will challenge automakers, since they try to improve safety standards, while meeting the requirements for efficient and cheaper vehicles (Deloitte, 2009, p. 11).

With the growth of the internet, consumers have become more empowered in price comparison and the way of buying changed considerably in favour of the online shopping (KPMG, 2013, p. 27). As a result, all companies have developed a stronger online presence; hence automotive companies are not an exception. However, only 4% of total car sales in 2011 in the United States were done online, due to the consumer's inability to fully access products and pricing information and test drive before buying a car. In addition, the consumers usually have concerns about car delivery and they are not able to negotiate on price with dealers. As a result, dealerships remain the primary sales channel. However, the online sales situation is much more favourable in the field of spare parts and aftersales services, which is a source of hope for car online sales (Deloitte, 2009, p. 12).

**Growth and globalisation.** As already discussed, Western Europe and Japan will continue to face a decline in vehicle sales, while there will be no slowdown of emerging BRIC markets, since their total new vehicle market share is predicted to reach toward 50% by 2018. China and India will emerge as important players alongside Western Europe, Japan, Korea and United States, which will altogether create six major automobile markets (Deloitte, 2009 p. 1). Today there is no doubt that those markets will also demand higher level of quality, safety and reliability as developed economies (KPMG, 2013, p. 34).

However, there will be a certain customer dichotomy between mature and emerging markets to which automakers will have to pay attention (Deloitte, 2009, p. 8).

In decades that follow, automakers will have to reorganise and adapt themselves to a dramatically new and highly competitive automotive landscape in order to be profitable and to reach high customers' expectations and governmental requirements considering environmental issues. They will have to be innovative. The question is, in what way they can manage to achieve it?

## **2.2 Opportunities and trends in the process of customer co-creation in the automotive industry**

According to Joseph, Peppers & Rogers (1995, p. 103), consumers do not want more choice in the market but exactly what they want, which is a starting point for companies to consider co-creation activities. As seen in the section 1.4, companies, regardless of industry, have already been exploring those possibilities. The automotive sector is not an exception. In the subsequent section 2.3, some of the best known examples of the automobile co-creation practices will be described, accompanied with an explanation of major opportunities car producers might tap by incorporating co-creation practices in their business process.

Until recently, in the process of developing a new product or redeveloping an existing one, automotive companies often relied only on information obtained through surveys, ethnography studies and consumer focus groups, which are nowadays not the only possibilities to explore new ideas. Since internet is a wide source of information and social media gained an important role, car producers embraced the new co-creation strategy, which includes consumers directly in the core of their product development processes (PwC, 2013, p. 4). The fact that consumers are continually becoming more empowered than in the past (section 1.2) creates a big opportunity for automakers. In order to fully engage customers in the creation of a new product or redevelopment of an existing one, companies are using a variety of engagement platforms, such as: (1) online communities, (2) social network sites, (3) crowdsourcing techniques or (4) contests (Gouillart & Ramaswamy, 2010; PwC, 2013). With use of those approaches, the automakers are not just getting a wider crowd of followers, but also an engaged and committed community of individuals that tend to actively collaborate with their favourite car manufacturer (PwC, 2013, p. 3).

**Online communities.** The first possibility a car manufacturer can do in order to attract committed and collaborative customers, is to explore an online community. By definition, it is a group of people with shared interests, who tend to interact with each other through the internet to exchange opinions, share knowledge and ideas, hence, tap opportunities. Therefore, all companies view online communities as a source of new ideas, a tool for marketing through consumer support and an important basis for building a strong

relationship with customers (Alavi et al., 2011, p. 38). In addition, such online conversations with, as well as amongst customers, provide company with customer beliefs, values, habits, desires, motives, emotions and needs (Rossi, 2011, p. 48). Company Local Motors, for instance, view its online community members as its most valuable asset (Business Innovation Observatory, 2014, p. 15).

**Social network sites.** Online social networks, such as Facebook, YouTube or Twitter, enable people to connect and communicate with each other, using the internet as an interface (Sarwar et al., 2013, p. 93). Since the web has been continually evolving, the usage of such digital communication tools contributes significantly in the business of any company, as social networks enable them to expand their business size and connections with new clients (Rohan & Lammas, 2010, p. 2). Baker (in Sarwar et al., 2013, p. 93) ads that social network has become an efficient marketing tool in every industry, since it gained the importance as a medium of communication. Moreover, working in the automotive sector and not fully using social media is equivalent to willingly giving up substantial revenue (Pindoriya, 2014). One amongst the first strong social media campaigns in automotive industry was called “The Fiesta Movement”, which was built around the launch of the new Ford Fiesta in 2009. One hundred individuals with large social media followings were lent a Fiesta for a period of six months and they were asked to complete different “missions” using their car and monthly document those stories and experiences at YouTube, Flickr, Facebook, and Twitter. This campaign was one of the most visible and formative social media experiment in the automotive industry. The effects of the campaign, at a relatively small cost for Ford, were enormous: strong prelaunch awareness, 6.5 million YouTube views, 50,000 requests for information about the car, and 10,000 Fiestas sold in the first six days of sales (McCracken, 2010).

**Crowdsourcing techniques.** The wisdom of crowd or crowdsourcing, quite a new term, which is quickly becoming an important social concept, refers to a process where a collective opinion of a group of people is of a bigger importance than an opinion of one single expert on a specific problem. The term *crowdsourcing* is a combination of two words “crowd” and “outsourcing”. Hence, the term itself explains its meaning, which is outsourcing a firm’s task, which was before done in-house, to a large group of internet users in order to define new appropriate solutions to a specific problem (Gupta & Sharma, 2013, p. 14). Crowdsourcing can radically change the way automobiles are designed, since the car design can be done by mass of people. The main advantage of crowdsourcing is building up a large community of people and creating a rich pool of knowledge and unique ideas (Sampson, 2009, p. 35). An example of crowdsourcing in automobile industry can be seen with Local Motors, a small automotive manufacturer, who wanted to design and produce a car, which would be capable of travelling at high speed over a desert terrain. The result was 162 designs provided, amongst which one was finally selected and produced within five months (Martindale, 2012, p. 30).

**Contests.** Car manufacturers can, in order to engage their customers and increase future

revenue stream, initiate various online co-creation contests (Business Innovation Observatory, 2014, p. 15). Designers can, through special platforms, for example submit their ideas to different kind of contests, which are later voted on a large community. The author of the winning design receives a cash prize, commission on sales or even a job (Business Innovation Observatory, 2014, p. 3). An example of such contest was held in cooperation between Opel/Vauxhall and Car Design News, which is the leading online resource for the automotive design industry's professionals, transportation design students, and for designers of all disciplines worldwide. They asked students to make a design for the Opel/Vauxhall Ampera car of the year 2020 by submitting both, the interior and exterior design. There were 263 students who participated in an online, interactive design competition and tried to secure the top prize, which was a paid internship at Opel/Vauxhall design centre in Rüsselsheim, Germany (Car Design News, 2014).

Since engagement platforms can range from a simple interface as a source of information or answers to customers' questions, to cooperative collaborative environment systems, it is crucial for automobile companies, to understand how a specific method functions and which method would be the most suitable for the nature of their business. In highly dynamic industries, such is the automotive, where the brand loyalty is of great importance, leaving its consumers out of the new product development process represents a huge risk of falling behind its competitors (PwC, 2013, p. 5). Hence, co-creation can significantly strengthen relationships in the entire automotive value chain, since it can emerge at the stage of product design and development, marketing or vehicle sale and service (PwC, 2013, p. 2). Automotive companies who successfully embrace co-creation strategy in any of its forms can reduce the risk of innovation efforts, which are not meeting customer needs, they can increase product quality, increase competitive advantage, gain new customers, generate new products and finally larger market share (Business Innovation Observatory, 2014, p. 2). Despite great progress in the field of automotive co-created product development and marketing through engagement platforms with potential customers, there is still a significant opportunity to expand co-creation practices in areas, such as dealer relations, after-sales services and support or any internal processes (PwC, 2013, p. 4).

## **2.3 Examples of successful use of customer co-creation in the automotive industry**

There are various well-known examples where automotive manufacturers have decided to involve their target customers and fans in the co-creation process, which took place through different types of virtual platforms that have been discussed. Those virtual platforms represent online meeting place, where customers can submit ideas, participate in vehicle concept design contests and share brand awareness (PwC, 2013). Seen in the section 2.2, co-creation practices give an enormous opportunity for automotive companies, especially in gaining insight in customers' minds, exploring new ideas and innovations, increasing the publicity, brand loyalty and long term profits.

### **2.3.1 Volkswagen – The “Polo Harlequin” and “People’s Car Project”**

As discussed in section 1.3.3, according to the shift in companies’ mindset, consumers can enter at any stage of value creation chain. Volkswagen, for example, with its Polo Harlequin, engaged its target customers in the stage of new product ideation and vehicle concept development. Through usage of dependency between two previously unrelated product features (in this case between colour and the specific location of car parts), Volkswagen created a new multi-coloured car, named the “Polo Harlequin”. It was introduced on 1<sup>st</sup> of April 1995, intended to be a part of Volkswagen’s Fools Day joke in a production of 1,000 units. The immense positive feedback convinced Volkswagen to increase its production to 3,800 units and the car was launched (DeMuro, 2013; Mascarenhas et al., 2004). At that time the car became quite popular in both, North America and Europe (Mascarenhas et al., 2004, p. 489).

Another example of Volkswagen’s use of concept co-creation approach was the “People’s Car Project” started few years later, in 2011 in China with an ambition to create crowdsourced concepts of the Volkswagen in the future. Volkswagen introduced an interactive open-innovation platform where people submitted their innovative ideas. The results were approximately 35.6 million views, around 13 million visitors, and more than 200,000 designs uploaded, amongst which three vehicles and technology ideas were turned into concepts and launched at the Beijing Auto Show in May 2012: The Music Car, the Hover Car, and the Smart Key (PwC, 2013; Ramsey, 2012). The first concept, called the Music Car is Volkswagen’s model Beetle which is covered by LED lights, which change colour according to driver’s choice of music. Furthermore, the second idea is the Smart Key, a 9 mm touchscreen, which functions as a navigation device and the last Hover Car that represents a zero-emission two-seater city car, which travels above future electromagnetic road network (Ramsey, 2012). It is navigated by a joystick and its numerous sensors avoid accidents on the road. With this project, which promoted the Volkswagen’s brand and gave the insight in needs of Chinese consumers, the Volkswagen brand has become the most digitalised automotive brand in China (PwC, 2013, p. 5). The campaign definitely demonstrates the power of crowdsourcing in exploring new ideas.

### **2.3.2 Ford’s interactive online community “Ford Social”**

Due to unlimited information and online communicating flows, consumers are more empowered than they used to be in the past. Internet provides opportunities which enable people to share thoughts, complaints and ideas, which is the base for building strong relationship and consequently brand loyalty (PwC, 2013, p. 6). There are various possibilities how to achieve such level of consumer integration, seen in the section 2.2, where it is also explained how the American car producer Ford used one of existing and widely spread social media network, YouTube, in its social media campaign “The Fiesta Movement”, to promote the new Fiesta model in 2009. Moreover, Ford has recently

establish its online community called “Ford Social” which helps car producer to build customer loyalty, spread word-of-mouth messages and establish two-way communication. Its fans can collaborate with their favourite car producer, share ideas, thoughts, or even design drawings (PwC, 2013, p. 6).

### **2.3.3 The BMW Group – Co-Creation Lab**

The BMW Co-creation Lab is a powerful research virtual community for all individuals with a passionate interest in cars, who are eager to share opinion and thoughts, give ideas about the future of automotive industry or submit their own car concepts. The BMW Co-creation Lab enables people from all parts of the world to connect with like-minded individuals and jointly collaborate with one of the leading German car manufacturer (BMW Group, 2014). The BMW Group, which sees co-creation as an important marketing strategy, rather than just an occasional outsourcing of innovation tasks, through this virtual meeting place engage its fans mainly in the stage of concept development, since it invites them to evaluate their developing concepts by commenting and sharing improvements (Bartl, 2009; BMW Group, 2014). The co-creation methods vary from new idea contests, virtual car concept tests to research studies (Bartl, 2009). Through co-creation Lab, BMW fans become active co-creators of BMW cars.

### **2.3.4 The Audi virtual Lab**

According to Bhalla (2011, p. 75), Audi cars are like “potato chips with a twist – once you’ve owned one, you want to own them again”. This special brand loyalty gave the Audi Company the basis for successful engagement of its enthusiastic fans. The Audi virtual Lab was created in 2001 in order to involve passionate drivers from Germany, United States, and Japan in the process of designing and developing the new multi-media console that would be launched with Audi’s new A8 series. The goal to create a new computer-aided vehicle control system was an answer to BMW’s console launch iDrive, which experienced a total market failure, since it was not user-friendly enough. To avoid the same mistake that BMW did, Audi, via web site, chat rooms, and social network sites, invited its target customers to collaborate with their team of engineers and marketing professionals. More than 1,600 drivers from all three countries participated in co-creating a design of new Audi’s console called MMI, which was launched on November 15, 2002 with the new Audi A8. The result was a much bigger success than the existing BMW’s console iDrive had before (Bhalla, 2011, p. 76).

### **2.3.5 Fiat’s concept car Fiat Mio**

Fiat Mio was the first crowdsourced concept car launched in 2010 at International Automobile Fair in Brazil. It was based on 11,000 ideas uploaded by 17,000 subscribers from 120 countries (PwC, 2013, p. 5). The project started in 2009 via virtual Fiat Style Centre, where people were invited to upload their ideas, which were voted by other

participants. The best ideas, with the highest number of votes, were later considered by Fiat's engineers, who embodied them in final car concept called Fiat Mio, a small rounded, oval two-seater city car, with a big, dark windscreen, that was wrapped around both sides of the car (Solon, 2010).

### **3 BRAND LOYALTY AS THE RESULT OF THE CUSTOMER'S DELIGHT**

Brand loyalty, the customer's conscious or unconscious decision, to repurchase the brand continually, has been one of the most discussed marketing concepts in the past decades (Khan, 2009, p. 84). This is not surprising since the crucial factor for the survival of a company is retaining current customers and making them loyal to the brand (Mellens, Dekimpe, & Steenkamp, 1996, p. 507). Therefore, the more competitive the market is (very complex product offer and low switching cost), the more important will be the level of consumer loyalty (Jones & Sasser, 1995, pp. 3–5). For instance, in the automobile industry, where the level of competitiveness is very high, completely satisfied customers are much more loyal than just satisfied customers (Jones & Sasser, 1995, p. 5). Furthermore, brand loyalty plays an important role in a long-term financial stability of a company (Jones & Sasser, 1995, p. 3). Reichheld (1993, p. 65) explains that it is possible for a company to increase profit by up to 60%, after reducing migration by 5%. Moreover, Rosenberg, & Czepiel (1984, p. 45) state that keeping an existing customer can cost the firm approximately six times less than it does winning a new one.

According to Oliver (1999, p. 33), for a long time, client's satisfaction was the main strategic business goal, which explains the trend confirmed by Marketing Aid Centre showing an increase in number of commissioned European satisfaction studies, by 25% in 1996 (Higgins, 1997, p. 11). Later on, a shift in strategic business goal was done in favour of customer loyalty, criticizing the fact that satisfaction and loyalty are linked inextricably (Jones & Sasser, 1995; Reichheld, 1996; Stewart, 1997). In fact, it was proved, that loyalty implies satisfaction, while satisfaction is not necessarily linked to loyalty, which results in asymmetric relationship between both concepts (Oliver, 1999; Waddell, 1995). It is possible that a customer remains loyal for many reasons and may not even be satisfied with a product or service (Khan, 2009, p. 85). Moreover, brand loyalty was in the past based only on repeat purchasing, which is nowadays no longer a sufficient indicator of loyalty (Jacoby & Kyner, 1973; Reichheld, 2003).

Loyalty, in the concept of branding, is one of the most widely interpreted concepts in the marketing literature (Morgan, 2000, p. 65). There are many definitions of brand loyalty but majority describe a process, revealing what a customer does to become loyal (Oliver, 1999, p. 34). In the broader meaning, loyalty is a repeat purchasing frequency of the same brand (Tellis, 1988, p. 138). According to Aaker (1991, p. 39), brand loyalty, which is a measure of the attachment that a customer has to a certain brand, shows how likely a customer switches to another brand when there is a brand's product price or features change. In

addition, Newman and Werbel (1973, p. 405) described a loyal customer as a person, who rebuys a brand, considers only that brand and does no brand-related information seeking. To sum up previous definitions Oliver (1999, p. 34) postulates the following: “Loyalty is described here as a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand set purchasing, *despite* situational influences and marketing efforts having the potential to cause switching behaviour.” One of the latest interpretation of brand loyalty comes from Chegini (2010, pp. 8–14), who describes loyalty as positive behaviour that includes repurchasing, support and offer to purchase.

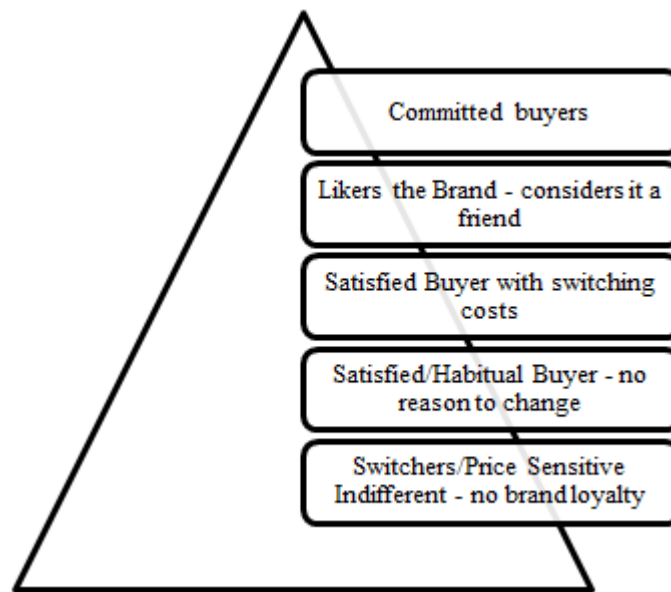
However, all those definitions have a common problem, since neither one of them taps into the psychological meaning of brand loyalty. Only the consistent purchasing, without a further analysis, is not a sufficient indicator of customer loyalty. On the other hand, if true brand loyalty exists, all three requirements: (1) preferable customer beliefs, (2) affective preference for a brand, and (3) higher intention to buy a brand must be fulfilled (Dick & Basu, 1994; Jacoby & Chestnut, 1978; Oliver, 1999). According to Jacoby and Chestnut (1978, p. 80), brand loyalty is: “The biased, behavioural response, expressed over time, by some decision-making unit, with respect to one or more alternative brands out of a set of such brands, and is a function of psychological (decision-making, evaluative) process.”

Aaker (1991, p. 39) in his Loyalty Pyramid identifies five levels of brand loyalty (Figure 3):

- **Switchers:** non loyal buyers, completely indifferent to the brand (brand name).
- **Satisfied/ habitual buyers:** satisfied or not dissatisfied buyers, who do not have an intention to change a brand, especially if it involves effort.
- **Satisfied buyers with switching costs:** satisfied buyers who have switching costs in a form of money, time or performance risk associated with switching.
- **Brand likers:** buyers who truly like the brand because of its high perceived quality or their positive experience connected to the brand.
- **Committed buyers:** buyers who are totally loyal to a certain brand, since it is very important to them either functionally or as an expression of who they are. They tend to recommend the brand to others.



Figure 3. The Loyalty Pyramid



Source: D. A. Aaker, *Managing brand equity: capitalizing on the value of a brand name*, 1991, p. 40.

Brand loyalty is a crucial goal of a product development process and a valuable contribution to competitive advantage (Khan, 2009, p. 84). As mentioned earlier, the increase and retention of loyal customers has become an important factor for long-time success of the company (Reichheld, 1993; Rosenberg, 1984). Companies whose consumers have strong loyalty to its brands can gain important competitive marketing advantages such as continuous stream of profit, decrease in operating costs and marketing costs, trade leverage, valuable time to respond to competitive moves at the right time and the ability to attract new customers (Aaker, 1991; Khan, 2009). Moreover, loyal consumers usually pay higher prices and are less price sensitive (Krishnamurthi & Raj, 1991; Reichheld & Sasser, 1990). To sum up, Mellens, Dekimpe, & Steenkamp (1996, p. 507) say the following: “Loyalty to the firm’s brands represents a strategic asset which has been identified as a major source of brands’ equity.”

According to Oliver (1999, p. 35), there are four loyalty phases starting with a cognitive loyalty and continuing with affective, conative, and finally behavioural loyalty, which implies that attitudinal loyalty leads to behavioural loyalty. All four phases are described below.

**Cognitive loyalty.** In the Oliver’s (1999, p. 35) first loyalty phase, the information available about a brand, such as price or feature information indicate that one brand is preferable to another. This means that cognitive loyalty is based on brand belief only, which derives from customer’s prior knowledge or recent experience. At this stage, loyalty is directed toward the brand as it is merely based on little information and stays on this particular stage if it becomes a routine and no satisfaction is processed. On the other hand,

if satisfaction occurs, it becomes part of consumer's experience and loyalty proceeds to the further level (Oliver, 1999, p. 35).

**Affective loyalty.** At the second stage, the attachment and attitude toward the brand has developed based on customer's previous usage satisfaction. Affective loyalty is a commitment which is built on both, cognition and affect. While cognition can be easily influenced by new information, affect cannot be changed so quickly. The affective loyalty is, similar to cognitive loyalty, still vulnerable to switching (Oliver, 1999, p. 35).

**Conative loyalty.** The next stage in Oliver's loyalty framework describes a phase of repeat episodes of positive affect toward the brand, which is defined as a commitment or a repurchase plan. Nevertheless, the intention to repurchase can be an expected or remains unfulfilled (Oliver, 1999, p. 35).

**Action loyalty.** At the last stage of loyalty, the desire, intention, and motivation to repurchase the brand transform into strong eagerness to act. In addition, customer at this stage desire to overcome possible obstacles that might prevent final act of repurchase and usage of the product or service (Oliver, 1999, p. 36).

### **3.1 Dimension models of brand loyalty**

Brand loyalty is a marketing concept which has, over recent years, interested both marketing practitioners and academics. While marketers try to find ways how to increase the level of brand loyalty in order to reach higher profitability, academics investigate consequences of brand loyalty. Several researchers have studies the evolution of the loyalty concept through time (Alhabeeb, 2005; Dick & Basu, 1994). As a result, there is a certain need for a brand loyalty framework audit (Worthington, Russell-Bennett, & Härtel, 2010, p. 244).

#### **3.1.1 One-dimensional model**

The brand loyalty approaches have been reconceptualising over decades. According to Rundle-Thiele (2005, p. 494), the concept of loyalty appeared in the marketing literature in 1940s. Firstly, the focus was laid on one-dimensional model, whose core concept was behavioural loyalty, which considered loyalty as the share of total purchases (Cunningham, 1956; Farley, 1964), buying probability (Harary & Lipstein, 1962; McConnell, 1968) or buying frequency (Sheth, 1968; Tucker, 1964). One-dimensional brand loyalty that has been dominating until 1970 paid little attention to a deeper conceptual explanation of brand loyalty phenomenon (Khan, 2009, p. 86). By then, authors had been focusing on outcomes of brand loyalty (repurchase behaviour) rather than on reasons for its phenomenon.

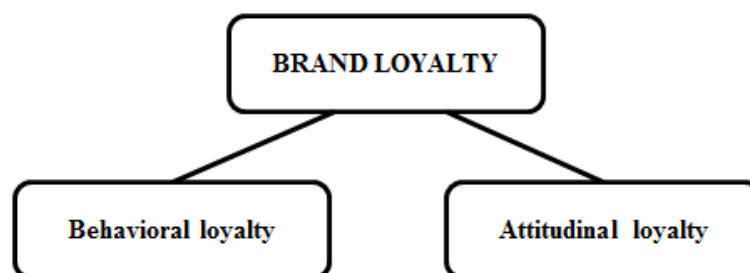
This ended when Day (1969, pp. 29–35) introduced a two-dimensional concept of loyalty, explaining that loyalty concept is more complex and it consists more than a single

dimension. When the concept of loyalty first appeared, two separate loyalty concepts were involved (Rundle-Thiele, 2005, p. 494). First was the “brand preference”, which was later known as attitudinal loyalty, and second the “share of market” that later referred to behavioural loyalty (Cunningham, 1956; Guest, 1955). Although early researches considered repeated buying as loyalty, later on academics proved that some repurchasing behaviour is not the key indicator of brand loyalty (Jacoby & Kyner, 1973; Reichheld, 2003). From a purely scholastic one-dimensional approach, the repurchase buying (behavioural dimension) was the only dimension of brand loyalty and it was impossible to detect its antecedents. Therefore, this has not enable companies to gain insight in building and increasing brand loyalty (Jensen & Hansen, 2006, p. 442). Newman and Werbel (1973, p. 404) agreed that there has to be a brand loyalty measurement, which could reflect the level of customer resistance to brand switching.

### 3.1.2 Two-dimensional model

Nearly thirty years after brand loyalty term emerged in the academic literature, Day (1969, pp. 29–35) proposed to add another dimension of loyalty, attitudinal loyalty. Soon after other researchers followed and the two-dimensional model was born (Assael, 1998; Dick & Basu, 1994). It considers that loyalty should always comprise favourable attitudes, intentions and repurchase behaviour (Day, 1969; Jacoby & Chestnut, 1978). Brand loyalty is conceptualized like an intention to purchase, thus it is believed that factors producing brand loyalty can be investigated (Jensen & Hansen, 2006, p. 442). Given these facts, most of the marketing literature defines brand loyalty as a combination between consumer’s attitude and repurchase behaviour (Figure 4) (Baldinger & Robinson, 1996; Chaudhuri, 1995; Day, 1969; Jacoby & Kyner, 1973).

Figure 4. Elements of a two-dimensional definition of loyalty



Source: B. M. Khan, *Consumers And Their Brands: Deciphering Dimensions Of Loyalty*, 2009, p. 85.

Despite improvements in explanation of the brand loyalty concept, some critics of two-dimensional model arose in the marketing literature (Worthington et al., 2010, p. 244). East, Gendall, & Hammond (2005, p. 15) agreed that Day’s (1969, pp. 29–35) two-dimensional model left open the discussion, whether the behavioural and attitudinal dimensions of loyalty are interactive. They later proved that attitudinal loyalty is not a sufficient predictor for the three types of marketing outcomes such as recommendation,

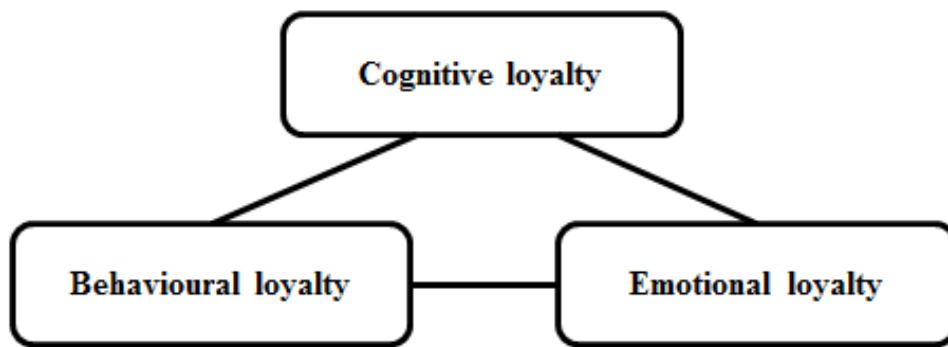
search and retention (behavioural loyalty) (East, Gendall, & Hammond, 2005, p. 15). Moreover, Russel-Bennett, McColl-Kennedy, & Coote (2007, p. 1258) found the positive correlation between attitudinal and behavioural loyalty and they also proved that in the small business sector, attitudinal loyalty explains only a small part of the variance in behavioural loyalty. For that reason, attitudinal loyalty was not helpful enough for marketing managers to increase loyalty to a certain brand. In order to overcome these critics and literature limitations, attitudinal loyalty had to reconceptualise by splitting into two sub-components (emotional and cognitive loyalty). Consequently, a three-dimensional approach was formed (Worthington et al., 2010, p. 244).

### **3.1.3 Three-dimensional model**

Human behaviour is a collection of different types of responses, but three of them are basic: behavioural responses (I do), cognitive responses (I think) and emotive responses (I feel). As a result, brand loyalty is a combination of consumer's thoughts, feelings and actions (Härtel, Russell-Bennett, & Lloyd, 2008, p. 13). Two-dimensional model was very important in the past, but in their work Dick and Bassu (1994, pp. 99–113) identified the need to define the composite loyalty as separate parts. As a result, other researchers followed and the multi-dimensional view of loyalty emerged in the marketing literature (Figure 5). It was actually an extended concept of Oliver's (1999, p. 35) Loyalty Phases framework examining cognitive, emotional and behavioural loyalty. However, according to Worthington, Russell-Bennett, & Härtel (2009, p. 245), the structural approach to attitude is not identical, since attitude is based on two-dimensional component structure (cognition and affect or emotion), while Oliver split attitude into three components (intention, cognition and affect).

As explained earlier, attitudinal loyalty consists of emotional and cognitive component. It is a psychological process, where positive brand attitude is created over time, which later contributes to higher profits without any additional promotions or price discounts (Fitzgibbon & White, 2004; Jacoby & Chestnut, 1978). Furthermore, according to Chaudhuri and Holbrook (2001, p. 90) attitudinal loyalty is linked with lower price sensitivity, but on the other hand does not explain larger market share, as behavioural loyalty does through frequent purchase behaviour. To sum up, attitudinal loyalty represents a degree of dispositional commitment to a brand in terms of unique value linked to that brand (Chaudhuri & Holbrook, 2001, p. 82). To have a deeper understanding about attitudinal loyalty, which relates to psychological commitment to a brand, it is important to define its two components: cognitive and emotional components.

Figure 5. A tri-dimensional approach to brand loyalty



Source: S. Worthington, R. Russell-Bennett and C. Härtel, *A tri-dimensional approach for auditing brand loyalty*, 2009, p. 245.

Firstly, cognitive commitment is linked to the decision to stay with a certain brand, after considering switching costs and product's or service's features and attributes (Worthington et al., 2010, p. 245). According to Oliver (1999, p. 35), **cognitive loyalty** is the first phase of brand loyalty, which is based on brand information that derives from customer's prior knowledge or recent experience.

Secondly, affective commitment is not linked only to positive feelings about the purchased brand, but evokes as well, a sense of emotional connections to a brand, called **emotional loyalty**. It is expressed by a degree of positive feelings when repurchasing the same brand (Worthington et al., 2010, p. 245). Härtel, Russell-Bennett, & Lloyd (2008, p. 13) describe emotional loyalty as a positive feelings stimulated by using or buying a product or service.

Thirdly, apart from attitudinal loyalty, **behavioural loyalty** is consumer's decision to repurchase a brand, a measurable behaviour, which has a direct impact on sales (Hammond et al., 1996; Worthington et al., 2010). Traditionally, behavioural loyalty has been defined as a repeat purchase pattern (Khan, 2009, p. 84).

When marketers try to find ways how to increase the level of brand loyalty, they first have to fully understand how all three dimensions operate for their brand. The identified levels of each component enable managers to build profitable marketing strategies (Worthington et al., 2010, p. 246). However, the importance of increasing all three brand loyalty dimensions is not yet the only factor for a brand to perform well (Dick & Bassu, 1994, p. 109).

### 3.2 Measures of brand loyalty

Since brand loyalty is clearly an asset which leads to high market share, return on investment and consequently to high brand equity, marketers try to find ways how to influence it, thus increase profitability (Khan, 2009, p. 84). In order to successfully study

and manage brand loyalty, a valid measurement has to be developed. It is noteworthy to mention that knowing the limitations of a measurement method is important part for a correct interpretation of results (Mellens et al., 1996, p. 508). Worthington, Russell-Benett, & Härtel (2009, p. 247) indicate three steps that marketing managers need to follow in order to make a brand loyalty audit. Firstly, the market research should be undertaken in order to identify current loyalty level. Secondly, the main customer segments should be profiled and effective marketing strategies should be launched, which will increase critical loyalty parts. Finally, re-measuring of brand loyalty for each segment must be undertaken, to evaluate the effect of the intervention.

Frequently, brand loyalty measures are classified into four groups, based on two dimensions: (1) attitudinal versus behavioural measures and (2) brand-oriented versus individual-oriented measures (Bloemer, 1993; Jacoby & Chestnut, 1978).

**Behavioural measures.** The most basic and direct way to determine loyalty is to observe actual purchase patterns over a certain time period (Aaker, 1991; Mellens et al., 1996). There are few main advantages of behavioural measures, which are a direct relation to the firm's performance, a relative ease to collect them and a low probability to be incidental, as they are based on a certain period of time (Mellens et al., 1996, p. 512). In addition, they offer objective measurements (Hallowell, 1996, pp. 27–42). On the other hand, the distinction between brand loyalty and repeat buying is quite unclear and the collected data are not a good prediction of future behaviour (Day, Shocker, & Srivastava, 1979, p. 11). Moreover, behaviour measurements do not offer any proper explanation of loyalty existence (Hallowell, 1996, pp. 27–42).

**Attitudinal measures.** As behavioural measures do not distinguish well between brand loyalty from repeated buying, on the other hand, attitudinal measures do so. They are based on preferences, commitments and buying intentions, thus linked to cognitive element of brand loyalty. The main advantage of those measurements is the insight into consumer's choice behaviour, but in contrast, they do not accurately represent the reality, since they are based on data collected in surveys, rather than on actual purchases (Mellens et al., 1996, p. 513).

**Brand-oriented measures.** The benefit of those measures is the possibility to compare brands and study the influence of marketing strategies on the resulting brand loyalty. In contrast, it is more difficult to explore the influence of individual characteristics on brand loyalty (Mellens et al., 1996, p. 514).

**Individual-oriented measures.** On the contrary, individual-oriented measures are beneficial when it is less important to what specific brand a customer is loyal, rather than the level of his/her loyalty. Those measures are not the most appropriate when the comparison between specific brands is important (Mellens et al., 1996, p. 514).

In order to understand, how each type of measures of all four main brand loyalty categories are used to evaluate the level of customer loyalty, further details are provided in Appendix A.

#### **4 A STUDY OF CUSTOMER CO-CREATION EFFECT ON BRAND LOYALTY IN AUTOMOTIVE INDUSTRY**

Innovation nowadays is critical for the success and sustained growth of any company (Connell, Edgar, & Olex, 2001, p. 35). Recently, authors agreed that companies often wrongly perceive the creation of successful brands and innovations, as a passive output of marketing intervention by brand managers on consumers and are usually unaware of the fact that strong brands arise from co-creation process involving both brand managers and consumers (Brown, Kozinets, & Sherry, 2003; Coupland, Iacobucci, & Arnould, 2005). Furthermore, it is well-known that all marketing strategies are insufficient if company's product or a service does not meet customer's needs (Tu, Lin, & Hsu, 2013, p. 181). Hence, it is of great importance that company regardless of industry, engages its target customers at any stage of value creation chain. As discussed in the section 1.3.3, those stages are: product ideation, concept development, prototype development, design development, prototype-design testing, packaging-label testing, manufacturing, ad testing, product/service bundle testing, product/service price-bundle mix testing, product financing bundle testing, national launch and press-release process or customer service and feedback (Mascarenhas et al., 2004, p. 122).

Neither all new products succeed in the market nor all product failures are created equal, however, according to Connell, Edgar, & Olex (2001, p. 35), there are several key success factors for new product development: (1) external factors – competitive environment, (2) internal factors – infrastructure, (3) innovation strategies, (4) project team and (5) executive directions. Kohli (in Boyle, 2007, p. 122) explains that approximately 75% to 85% market product launches fail. The key reason is usually inability to adequately meet complex consumers' needs (Ogawa et al., 2006, p. 65).

Since many organisations, amongst which automotive companies are not an exception, still do not take into account the whole potential of customer empowerment, which could enable them to develop and produce exactly what customers want, various new car launches fall short of sales targets. While many cars produce losses, there are several examples of catastrophic failures. Ten most loss making European car examples of modern times that have suffered miserable flops and estimated collectively lost approximately 20 billion euros over their product life cycle are in descending order: (1) Smart ForTwo, (2) Fiat Stilo, (3) Volkswagen Phaeton, (4) Peugeot 1007, (5) Mercedes A Class, (6) Bugatti Veyron, (7) Jaguar X-Type, (8) Renault Laguna, (9) Audi A2 and (10) Renault Vel Satis. All mentioned car models had one amongst main launching problems that are: a wrong strategic leap between car segments, an attempt to remain premium car brand with the cost of small car or become something, customers are not used to, a wrong technology leap or

unrealistic production projections (Bernstein Research, 2013).

In the past decade, slowing economy, competitive and financial pressures, accompanied with declining consumer confidence led to a significant drop in new automobile sales in numerous markets globally (Deloitte, 2014, p. 1). As seen in section 2.1, automotive leaders have been notably affected by four types of external forces: environmental challenges, growing urbanisation, changing consumer behaviour and growing globalisation (KPMG, 2013, p. 12). Firstly, while searching for the most fuel-efficient engine to replace the existing ICE technology, ecology is one of the most important concerns car producers are facing today. Secondly, as the world's population is increasing and cities are getting crowded and polluted, the need for smaller, fuel-efficient cars emerged. The latter also accelerated the research and development of alternatives to car ownership, as car sharing or pay-on-use. Thirdly, consumer behaviour changed dramatically, since people have become more empowered, demanding and connected, thus no longer just passive actors, who simply accept what is offered by car manufacturer, but they suggest what they need and tend to co-create with automobile company. Last but not least, since manufacturers globally do not face the same level of demand, it will be crucial for those with access capacity to maintain market share in their home markets and successfully compete for export markets (OECD, 2012, p. 22).

Due to challenging external, global factors and difficulties with changes in consumer preferences, car producers are struggling to create car models which would reach high sales projections and avoid catastrophic losses. Furthermore, they are no longer in the position to take the concept of brand loyalty as granted. According to marketing literature, in the automotive industry, co-creation has emerged as a new, successful marketing strategy, since it has a great impact on customer satisfaction and provides a broad insight in consumers' needs. Furthermore, it enables companies to increase productivity and generate new products ideas, design concepts, attractive promotion methods and appealing car launches, hence provide customers with unique experiences. Moreover, co-creation strategies increase returns for automotive companies, lower launching risks and costs (Ramaswamy & Gouillart, 2010, p. 15). According to co-creation practices with Volkswagen, Audi, Ford, BMW and Fiat, empowered, connected, open-minded and passionate automotive enthusiasts from United States, South America, China, Japan and Europe are eager to participate in different co-creation missions and cooperate with their favourite car producer.

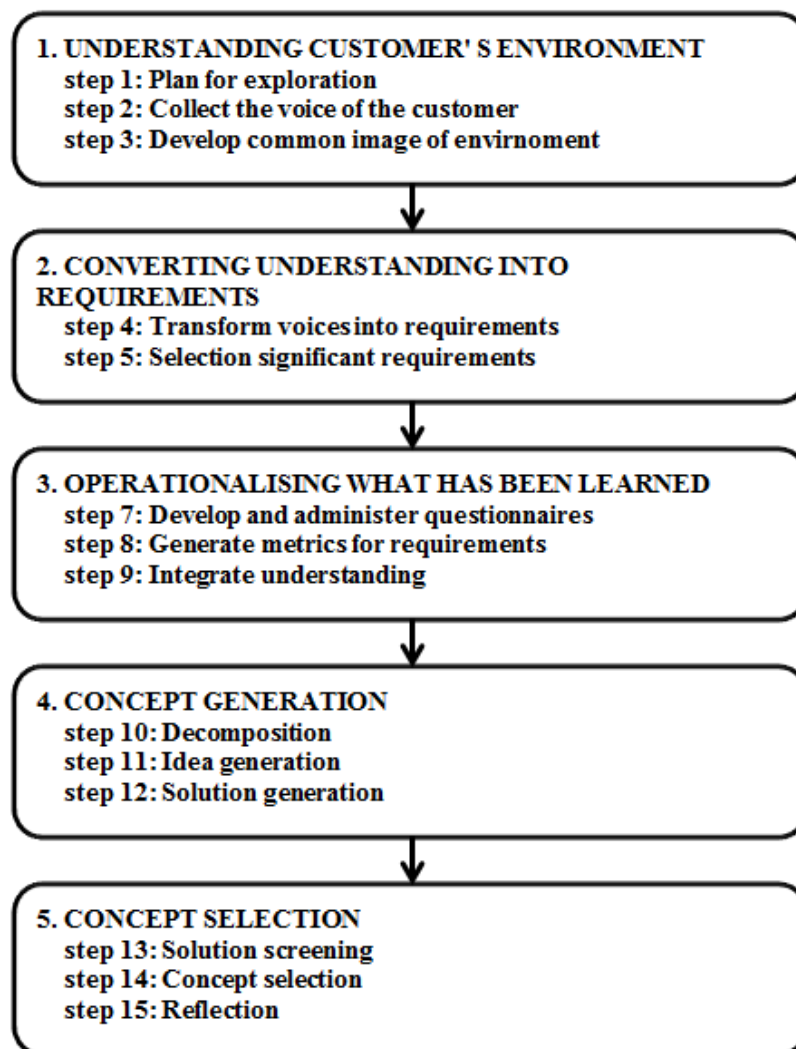
Automobile companies tend to launch appealing car models to maximize profits and perceived value in highly competitive automotive industry. Often they realise it through customer collaboration from the initial stage of idea generation to launching stage, especially at conceptualisation, design and engineering, and prototyping phases (Baxter, 1995; Kaulio, 1998).

Product concept development is one of the earliest phases a company undertakes in the



process of any new product generation (Burchill & Fine, 1997, p. 465). It is a rough description of technology, working characteristics and form that the product might take in the final phase. Hence, the concept's purpose is to describe how the potential product will satisfy customer needs in the future (Mascarenhas et al., 2004, p. 489). Usually, concept engineering process, which leads any product development team toward a new product creation, consists of five basic stages: (1) understanding customer's environment, (2) converting understanding into requirements, (3) operationalising what has been learned, (4) concept generation and (5) concept selection (Burchill & Fine, 1997, p. 466). Those stages split altogether into fifteen steps illustrated in Figure 6. Therefore, concept engineering process usually begins with a combination of customer unfulfilled needs, target specifications and results in a set of product concepts amongst which a new product development team make the final selection (Mascarenhas et al., 2004, p. 489).

Figure 6. The five stages and fifteen steps of concept engineering



Source: G. Burchill and C. H. Fine, *Time Versus Market Orientation in Product Concept Development: Empirically-Based Theory Generation*, 1997, p. 467.

Regardless of industry, process of concept engineering (Figure 6), can be applied for different product development teams in various companies. However, the process largely differs depending on whether more focus is placed on development time required or customer needs consideration (Burchill & Fine, 1997, p. 465). When applying theory of concept engineering stressed by Burchill and Fine (1997, pp. 465–478) to specifics of automotive companies, the procedure of creating a concept vehicle would lead through the same five stages:

**Stage 1 – Understanding potential car buyers’ environment:** The objective of this stage for product team would be to develop empathy for car buyers in their real environment, through creating an exploration plan and later, on its basis, conducting cross-functional teams or focus groups with potential customers.

**Stage 2 – Converting understanding into requirements:** The second stage would serve to merge all car buyers’ information and needs gathered in exploration phase through stage 1 and organise them in well understood sets of customers’ requirements.

**Stage 3 – Operationalising what has been learned:** The goal of the third stage would be to ensure that all the main requirements, provided by potential car buyers are clearly and logically communicated in a measurable framework.

**Stage 4 – Concept vehicle generation:** This stage is essential, as it passes from “requirement phase” to “idea phase”, meaning that the product team would provide ideas for all car buyers’ unfulfilled needs and requirements, which would be later systematically reviewed and adequately enhanced.

**Stage 5 – Concept vehicle selection:** Finally, the objective of the last stage would be for product team to collectively evaluate existing ideas in collaboration with experts from engineering and design departments, and on its basis produce a small number of tangible concept vehicles. The “surviving” concept vehicles would be than normally evaluated against customers, at auto shows. On the basis of their response, product team will later decide whether concept vehicle is mature enough to proceed on further level in the process of new car development or it requires certain modifications.

As vehicle concept development is, as any other concept development process, a complex procedure, which requires a certain amount of time and effort, customers’ actively collaboration can significantly facilitate the procedure, lower development costs and save time. By including passionate automobile customers in the process of vehicle concept development, a particular car producer would be able to skip the first four stages of concept engineering process, illustrated in Figure 6, since customers would submit online their dream concept vehicles, created with the help of web-based concept editor. This would help the company to directly proceed on the last stage, a vehicle selection phase. Moreover, customers’ unfulfilled needs would be much more adequately provided, since

they would have been embodied in their design concepts it selves.

According to the previous researches in co-creation, customer engagement has been assessed as an important antecedent of customer commitment and loyalty. The goal of this master's thesis is to explore and empirically test four key factors among the Slovenian car buyers, which are likely to boost participation in new vehicle co-creation activity in automobile industry. Therefore, I focused my research on collaborative conceptual car design development. I tried to understand, which factors would be important for the Slovenian car buyers to majorly agree to participate in co-creation activity, by submitting online their vehicle design ideas, in order to cooperate with their favourite automobile company. In the following, I empirically tested the impact of the customers' participation in such co-creation activity on customer loyalty (attitudinal and behavioural) toward this particular automobile brand and the influence of attitudinal loyalty on behavioural loyalty as well. The structure of conceptual model is explained in the next section.

## **4.1 Conceptual framework and research hypotheses**

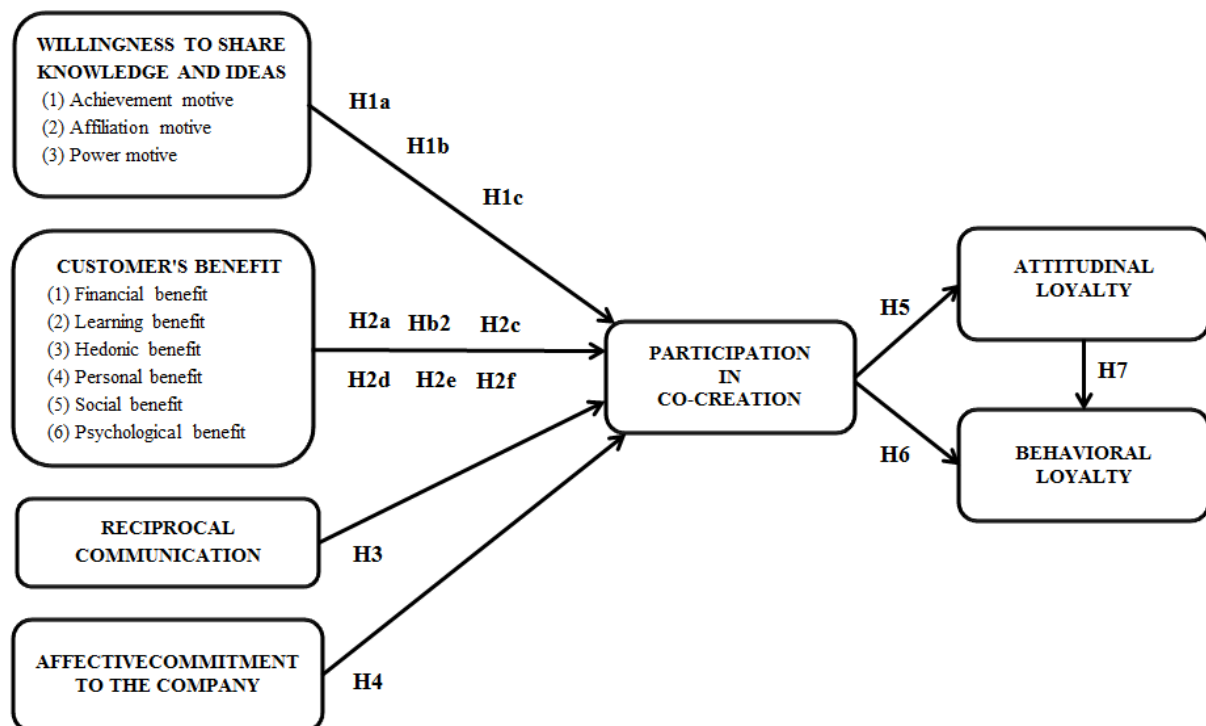
In order to improve profitability, one of the main goals of any company is to develop new or modify the existing products and the only way companies can achieve that is to persistently satisfy consumers' better and more efficiently than their competitors. Hence, the process of a successful product developing, which enhances revenue and consequently company's profitability, is inextricably linked to a deep understanding of consumer needs and efforts to fulfil those needs (Hauser, Tellis, & Griffin, 2006, p. 687). One of the marketing approaches that proved to be efficient in predicting and identifying consumers' needs regardless industry is co-creation. This marketing strategy can emerge in different contexts but the most increasingly vital is in the area of new product development (Hoyer et al., 2010, 283). This is one of the main reasons the concept is rapidly gaining its importance in professional and academic spheres (Hosseini & Hosseini, 2013, p. 106). Therefore, co-creation strategy has been frequently discussed in marketing literature and used by companies, due to its perceived importance, as a new attractive approach for increasing customer loyalty and products success in the market (Hoyer et al., 2010; Pini, 2009).

I propose a conceptual model through which I investigate chosen factors which may boost the participation in vehicle co-creation activity amongst Slovenian car buyers and the relationship between participation in such co-creation activity and consumer loyalty (attitudinal and behavioural). To build my conceptual model two research models done by (1) Hakanen and Jaakkola (2012, p. 305) and (2) Auh et al. (2007, p. 361) were applied. Given the facts that in the last decade car manufacturers have been facing four strong external forces and have been struggling to sustain customers' loyalty, co-creation is exanimated due to its potential to create additional value for car buyers and make them loyal to a particular automotive brand, therefore it encourages them not to defect (KPMG, 2013, p. 12). Furthermore, co-creation enables automakers to gain a deep understanding of

the Slovenian car buyers' unfulfilled needs, therefore avoid product failures for not meeting those expectations. This is a starting point for long term profitability of the company. Therefore, managers in automotive sector should plan appropriate programs to make their customers more productive and find ways how to empower them.

My proposed conceptual model is illustrated in Figure 7.

Figure 7. Proposed conceptual model



In the first part (hypotheses H1 to H4), I intended to explore how chosen key factors (1) willingness to share knowledge and ideas, (2) customer's benefit, (3) reciprocal communication between customer and the company and (4) affective commitment to the automobile company, influence the participation of Slovenian car buyers in vehicle co-creation activity. Those factors have been chosen on the basis of two co-creation studies done by Hakanen and Jaakkola (2012, pp. 593–611) and Auh et al. (2007, pp. 359–368). Although both mentioned studies explored 13 different factors, which were likely to boost the co-creation activity, I chose four amongst them and empirically tested their effect toward Slovenian car buyers' participation in co-creation activity in automotive industry. To better understand both co-creation studies, that have been the groundwork of this master's thesis, the following provides some insight.

The first research done by Hakanen and Jaakkola (2012, pp. 593–611) tend to identify critical factors (related to customers and suppliers) affecting the effective co-creation of customer-focused solutions within business networks. They collected data using a qualitative, multiple case studies within 13 companies, including suppliers and their

customers, through 51 interviews and 21 observations (Hakanen & Jaakkola, 2012, p. 603). One part of their findings, which was relevant for my further research and enabled me to partly build my conceptual model was that customer-related factors affecting the co-creation activity relate, besides uniqueness and clarity of customer problem to be solved and customer expectations regarding their role in co-creation process, mostly to willingness and ability to participate in co-creation process and customer's benefits or value expected (Hakanen & Jaakkola, 2012, p. 604). The two latest factors represent my first (H1) and second (H2) research hypothesis. The whole structure of customers and suppliers related factors that affect the co-creation of integrated solutions within business networks, researched by Hakanen and Jaakkola, is illustrated in Figure 2 in on page 20 (Hakanen & Jaakkola, 2012, p. 605).

The second research conducted by Auh et al. (2007, pp. 359–368) was carried out amongst 1.197 customers of a large multinational financial services organisation and 100 patients of medical services in order to explore the effect of co-creation in financial services on customers loyalty, with a support from an investigation in the medical service context (Auh et al., 2007, p. 359). According to their research, reciprocal communication between customer and organisation, client expertise and affective commitment to the company are positively and significantly related to co-production (co-creation). Hence, I include two additional antecedents in conceptual model: reciprocal communication (H3) and affective commitment to the company (H4).

Each of research hypotheses (H1, H2, H3, and H4) is based on literature review as explained below.

#### **4.1.1 The role of customer willingness to share knowledge and ideas**

Successful exploration of customer knowledge is one of key factors, which can significantly improve company's competitive advantage by enabling the company with a better access to new product design ideas, with early warning and important insights in customers' needs (Koenig & Srikantaiah, 2000; Rowley, 2004). Seen in the section 2.2, in order to fully engage customers in the new vehicle creation, automobile companies are using a variety of web-based engagement platforms (online brand communities), with use of which, they are not just getting a wider crowd of followers, but also an engaged and committed community of individuals, which tends to actively collaborate with their favourite car manufacturer (PwC, 2013, p. 3). Therefore, online brand communities expand opportunities for automotive producers to gain a deeper understanding about their target customers by following their information exchange (their demographics, preferences or lifestyle), as well as soaking up knowledge which resides directly in customers themselves (their opinion and experiences about the products). However, the success of such online platforms depends strongly on customers' willingness to share their knowledge with automobile company as well as with other customers (Lee, Cheung, & Lim, 2006, p. 289).

Wu and Sukoco (2010, pp. 11–19) were examining the key drivers of members inside online communities to share knowledge and ideas, despite the fact that those individuals are not familiar with each other. Exploring knowledge sharing motives enable marketers to create conditions which could enhance sharing behaviour amongst participants of online communities.

According to several motivation studies, human motivations are multidimensional (Mayer, Faber, & Xu, 2007; McClelland, 1987). Therefore, Wu and Sukoco (2010, p. 11) divide multidimensional motivations related to knowledge sharing into three different groups, linked to social behaviour: (1) achievement motive, (2) affiliation motive and (3) power motive. In the context of my research I merge those three groups of knowledge sharing motives under one common construct named “willingness to share knowledge”.

First of all, the achievement motive describes an individual’s need of being personally competent, meaning that he or she tries to solve product problems or answer to other participants’ product problems in order to get a sense of achievement (Ardichvili, Page, & Wentling, 2003; Brown & Duguid, 2000). Secondly, the affiliation motive to share knowledge refers to an individual’s self-perception as a member of a particular social group which maintains a close and friendly relationship between individuals, shares common values and emotions (Austin & Worchel, 1986; Ellemers, Spears, & Doosje, 1999; McClelland, 1987). Such social integrative factor (affiliation motive), where members feel the need of having a relationship with each other inside online community, usually develops over time (Nambisan & Baron, 2009; Wu & Sukoco, 2010). Finally, the power motive is defined as an individual’s driver to control and influence other participants inside online community, by making regular and high quality contribution, for example, answering questions of other participants or showing personal expertise (Bandura, 1995; Winter & Stewart, 1978; Wu & Sukoco, 2010). Individuals that possess a power motive of knowledge sharing usually show leadership skills, enjoy drawing attention and try to get recognition from other participants of online community (Bagozzi & Dholakia, 2006; Sokolowski et al., 2000; Winter & Stewart, 1978).

According to the research done by Wu and Sukoco (2010, p. 11), participants of online communities share their knowledge and ideas in order to achieve a certain level of product knowledge, connect (affiliate) with other participants of online community and to obtain social recognition.

In the context of my research, customer knowledge is shared by customers’ submitting vehicle design ideas online, while voting and commenting vehicle design ideas submitted by other customers. Thus, the following hypotheses are proposed:

- **H1a:** The achievement motive has a positive influence on the customer’s participation in co-creation activity in the automotive industry.
- **H1b:** The affiliation motive has a positive influence on the customer’s participation in

co-creation activity in the automotive industry.

- **H1c:** The power motive has a positive influence on the customer's participation in co-creation activity in the automotive industry.

#### 4.1.2 The role of customer's benefits

Co-creation is a market business strategy and collaborative generation of new value between customers and a company, increasingly used in new product development. In order to trigger individuals to participate in co-creation activity, they need to be motivated first. Motivation is a key factor, which differentiates human behaviour and drives their voluntary action(s) (Deci & Ryan, 1985; Nambisan, 2002). According to Nambisan (2002, p. 404), the quality and level of customer's engagement and contribution to company's co-creation activity depends largely on his/her benefits expected. However, the main difficulties in motivating individuals often lie in differences that exist amongst humans. Where one may be motivated mostly by intrinsic motivators, someone else would be triggered by extrinsic ones (Ophof, 2013, p. 5). In the following, the key intrinsic and extrinsic motivators for the customers' engagement in co-creation activity are described.

**Financial benefit.** One of the most powerful extrinsic drivers is financial motivator. According to Hoyer et al. (2010, p. 289) financial motivators are: "financial rewards, either directly in the form of monetary prizes or profit sharing from the firm that engages in co-creation with them, or indirectly, through the intellectual property, that they might receive, or through the visibility that they might receive from or engaging in (and especially winning) co-creation competitions". In the context of my research, a financial motivator can refer to a certain amount of money which is given to an individual who submits the winning vehicle design according to the highest number of votes by other participants.

**Learning benefit.** Customers can be motivated to participate in co-creation activity, if they receive additional information about products, learn about new technologies or improve existing skills. In the context of my research, the Slovenian car buyers can be motivated to participate in vehicle co-creation activity as long as they are interested in gaining knowledge in sphere of automotive industry, web-based vehicle editor functionalities, industrial design or concept generation process. Hoyer et al. (2010, p. 288) explains learning motivator as: "one's desire to gain technology or product/service knowledge, by participating in forums and development groups run by manufacturer".

**Hedonic benefit.** The value of a hedonic system is a function of the level to which the user experiences enjoyment, pleasure and mental stimulation when using the system (Nambisan & Baron, 2009; van der Heijden, 2004). Customers, who are motivated by a hedonic motivator, would be strongly persuaded to participate in co-creation activity driven by entertainment and enjoyment associated with submitting vehicle designs online with use of web-based concept editor. Such co-creation activity would enable them to improve existing car characteristics.

**Personal and social benefit.** Customers can be motivated to participate in co-creation activity either to achieve personal goals (reward, recognition, approval, enjoyment) or shared goals (becoming a member of a particular group of individuals of shared interests) (Deci & Ryan, 1980; Hennig-Thurau, Gwinner, & Walsh, 2005; Wasko & Faraj, 2005).

**Psychological benefit.** The psychological factor refers to inner beliefs and values an individual has. This can be a strong affection to a certain brand, company, product or service (Hoyer et al., 2010, p. 289). In the context of my research, a psychological motivator that would motivate an individual to participate in co-creation activity can be a strong emotional commitment and attachment to a certain car manufacturer or automobile brand.

For the purpose of this master's thesis, I will explore, which amongst previously described benefits motivate Slovenian car buyers strong enough, to make them participate in vehicle co-creation activity with an automotive company. Therefore, I would like to test whether customer's benefit and value expected are positively related towards the decision to participate in co-creation. Accordingly, there are hypotheses:

- **H2a:** The financial benefit has a positive influence on customer's participation in co-creation activity in the automotive industry.
- **H2b:** The learning benefit has a positive influence on customer's participation in co-creation activity in the automotive industry.
- **H2c:** The hedonic benefit has a positive influence on customer's participation in co-creation activity in the automotive industry.
- **H2d:** The personal benefit has a positive influence on customer's participation in co-creation activity in the automotive industry.
- **H2e:** The social benefit has a positive influence on customer's participation in co-creation activity in the automotive industry.
- **H2f:** The psychological benefit has a positive influence on customer's participation co-creation activity in the automotive industry.

#### **4.1.3 The role of reciprocal communication between customer and company**

According to Prahalad and Ramaswamy (2004, p. 31), successfully established dialog between the customer and co-creating company is one of “key building blocks” of customer engagement as an active co-creator of value (see section 1.3.4). Moreover, authors stress that communication, which is established in the co-creation process, differs from other forms of communication, since it focuses only on issues that interest the customers and the company, requires a forum in which dialog can occur and implicit or explicit rules of engagement as well, in order to make a productive interaction (Prahalad & Ramaswamy, 2004, p. 23).

The content of reciprocal communication in virtual environment, in the context of new



vehicle co-creation activity refers to the level of keeping customers informed about their and competing vehicle design ideas performance, web-based editor functionalities and the level of company's responsiveness to customers questions and requests.

According to Sharma and Patterson (1999, p. 158), communication between different parties involved in a certain business is crucial for establishment of a strong and trusting relationship, since it builds trust and resolves problems that arise. Therefore, I expect in my research that communication between customers and key factors responsible for co-creation activity of that particular automotive company would increase the customers' participation in such co-creation activity. Accordingly, the hypothesis:

- **H3:** Reciprocal communication through virtual environment between customers and the automotive company has a positive influence on customers' participation in co-creation activity.

#### **4.1.4 The role of affective commitment**

Affective commitment between a customer and a company is a relationship driven by perceptions of reciprocity and trust. It indicates the customer's attachment to the company in terms of shared values, sense of liking or belonging and may lead to an emotional affiliation to the company (Fullerton, 2003; Gustafsson, Johnson, & Roos, 2005; Meyer & Allen, 1997; Verhoef, 2003). Commitment can be seen also as a strong need to sustain good business-to-customer relationship (Shankar, Smith, & Rangaswamy, 2003, p. 154). According to the literature review, the customers with strong effective commitment toward the company or a particular company's brand, are much more motivated to contribute to company's outcomes, therefore, they are more likely to participate in co-creation activities with that company (Bhattacharya & Sen, 2003; Hoyer et al., 2010; Meyer & Allen, 1997).

Thus, I expect that affective commitment of a Slovenian car buyer toward a particular car producer (automobile brand) would increase his/her willingness to participate in co-creation activity of that automobile company. The following hypothesis is proposed:

- **H4:** Affective commitment to the automobile company has a positive influence on customer's participation in co-creation activity.

In order to investigate the impact of co-creation activity on brand loyalty among the Slovenian car buyers, I expanded my research model by including attitudinal and behavioural loyalty. Not only that I had intended to examine the effect of co-creation on both types of brand loyalty among the Slovenian car buyers, but also the relationship between them. At this point, I based my conceptual model, once again, on the research done by Auh et al. (2007, pp. 359–368). According to their findings (Auh et al., 2007, p. 366), co-creation activity significantly influences attitudinal loyalty, while not behavioural. In the second part of my research, I empirically tested, whether those conclusions could be applied to the automotive industry as well.

#### 4.1.5 Co-creation and brand loyalty

As seen in the section 3.1, customer loyalty towards a certain brand entails more than just one simple dimension. On the contrary, this is a complex multi-dimensional concept. According to the literature review, consumers are loyal when they possess a favourable attitude toward a brand, which they purchase consistently (Oliver, 1999; Wilkie, 1994). Hence, consumers can be both, attitudinally and behaviourally loyal to a brand.

In the context of my research, I define co-creation as an active cooperation of the Slovenian car buyers with an automobile company. In other words, I define it as an active participation in the process of new vehicle design generation performed by sharing vehicle designs ideas to a specific virtual environment (online platform), created with help of web-based editor. Such co-creation provide the Slovenian car buyers with several benefits, including increased satisfaction, new and exciting experience of value, opportunity to create their dream car and finally, with their greater influence on final vehicle appearance. Likewise, the automobile companies have certain benefits from co-creation as well. One of those is an increase in brand loyalty (Franke et al., 2009; Leingpibul et al, 2009; Mathwick et al., 2007). My research will focus on exploring to what extent vehicle co-creation activity would influence attitudinal and behavioural loyalty in the Slovenian automotive industry toward a particular automobile brand.

In my research, the attitudinal loyalty refers to a measure of the Slovenian car buyers' intentions to stay with the same automobile brand and to the level of commitment to the same automobile manufacturer, after participating in vehicle co-creation activity with this automobile company. The behavioural loyalty is an objective measure of frequency and regularity of the Slovenian car buyer's (re)purchases of the same automobile brand over time, as a consequence of past participation in co-creation activity of that automobile company. Accordingly, the hypotheses:

- **H5:** There is a positive relationship between a customer's participation in co-creation activity and the attitudinal loyalty in the automobile industry.
- **H6:** There is a positive relationship between a customer's participation in co-creation activity and the behavioural loyalty in the automobile industry.

In addition to the hypotheses H5 and H6, an important literature perspective, which refers to the loyalty concept, is also the belief that the behavioural loyalty and attitudinal loyalty are inextricably linked, meaning that an individual who develops the attitudinal loyalty toward a certain brand will later develop behavioural loyalty toward the same brand as well (Liska, 1984; Oliver, 1997; Russell-Bennett et al., 2007).

In order to examine, whether there is a relationship between the attitudinal loyalty and the behavioural loyalty among the Slovenian car buyers, who participated in the co-creation

activity of the automotive company, the following research hypothesis is put forth:

- **H7:** In the automotive industry, an attitudinal loyalty amongst participants has a predictive path, which leads toward behavioural loyalty.

## **4.2 Research methodology**

In order to explore critical factors needed to boost the Slovenian customers' participation in co-creation activity in the automotive industry and discover how brand loyalty for a certain automobile brand is affected when such co-creation activity is successfully implemented in the business process, a literature review and the empirical research was done. Therefore, my master's thesis tries to answer the following research questions:

- “Which amongst factors (1) willingness to share knowledge and ideas, (2) customer's benefit, (3) reciprocal communication between customer and company, and (4) affective commitment to the company would most positively boost the Slovenian car buyers' participation in co-creation activity of the automotive company?”
- “Would the implementation of such co-creation activity influence participants' attitudinal and behavioural loyalty toward this automobile brand?”
- “Has attitudinal loyalty among the participants a predictive path, which leads toward the behavioural loyalty?”

The results of the empirical research, conducted through an online questionnaire among the Slovenian car buyers, are analysed in order to examine relationships between the variables in the conceptual research model illustrated in the Figure 7.

### **4.2.1 Measures**

My conceptual research model includes seven constructs. Four among them are antecedent constructs: (1) willingness to share knowledge and ideas, (2) customer's benefit, (3) reciprocal communication and (4) affective commitment to the company. Construct willingness to share knowledge and ideas includes three dimensions and the construct customer's benefit includes six dimensions. The remaining three constructs (5) participation in co-creation activity, (6) attitudinal loyalty and (7) behavioural loyalty are outcome variables.

Table 4 includes all measured variables and their literature sources. When it was possible, I used the existing, but adapted measurement scale to fit the context of co-creation activity, done in virtual environment of an automotive company (for the achievement motive, affiliation motive, power motive, affective commitment to the company and behavioural loyalty). In contrast, if I assumed an item of the original scale as redundant for the context of research, I did not include it in the questionnaire (reciprocal communication between a customer and a company). Moreover, for construct customer's benefit, I have not adapted

the completed existing scales but I constructed it according to the studies of several different authors, seen in the Table 4. Finally, for the construct attitudinal loyalty, I combined the existing scales of the following authors: two-item scale from Kuikka and Laukkanen (2012) and six-item scale from Auh et al. (2007).

Table 4. Measurement items' sources

<b>Measurement item</b>	<b>Number of items</b>	<b>Literature Review</b>
Achievement motive	4	Schmalt (1976); Wu & Sukoco (2010)
Financial benefit	4	Fuller (2005); Hoyer et al. (2010)
Affiliation motive	4	Sokolowski (1992); Wu & Sukoco (2010)
Power motive	4	Schmalt (1987); Wu and Sukoco (2010)
Learning benefit	2	Nambisan (2002)
Hedonic benefit	2	Sarkar (2011)
Personal benefit	2	Fuller (2005); Zwass (2010)
Social benefit	4	Fuller (2005); Hoyer et al. (2010); Zwass (2010)
Psychological benefit	5	Fuller (2005); Hoyer et al. (2010)
Reciprocal communication	3	Auh et al. (2007)
Affective commitment	4	Auh et al. (2007)
Attitudinal loyalty	6	Auh et al. (2007) ; Kuikka & Laukkanen (2012)
Behavioural loyalty	2	Kuikka and Laukkanen (2012)

In the Appendix E, I provide all item codes used in the further analysis and complete wording of each scale item with their measurement properties adapted by the existing literature in English and Slovenian language. Those measurement items were integrated in an online questionnaire described in the next section.

#### **4.2.2 Data collection and sample**

The empirical part of this master's thesis was based on a survey method, conducted through an online questionnaire. According to Malhotra and Birks (1999, p. 326) this is a structured technique of data collection that consists of a series of written questions that are answered by a group of respondents. Online questionnaire has been created via web-based survey host called 1KA, which already provided me with some analysis tools and allowed me to export data into survey authorised and deployment software SPSS 20.0 (Jones, Murphy, & Edwards, 2008; Sue & Ritter, 2007). There are several advantages of an online questionnaire for data collection, which mainly refer to lower costs, quick response, less data-entry errors and increased pool of study participants (Ahern, 2005; Jones et al., 2008; Sue & Ritter, 2007). In contrasts, basic disadvantages are linked to low response rate and representativeness of sample as well as with an increased likelihood that some questions

remain answered (Aitken, Power, & Dwyer, 2008; Brindle, Douglas, & van Teijlingen, 2005; Velez, Buletti, & Volz, 2004).

A pre-test was conducted with 13 respondents (mainly students of Faculty of Economics, University of Ljubljana) to confirm that the instrument and measurement items were readable and completely interchangeable linguistically to ensure the translation quality from English to the Slovenian language (Brislin, 1980, pp. 389–444). Finally, the revised and adapted questionnaire consisted of nine questions in total (six main questions and three demographic questions). In the beginning, respondents were presented with five questions concerning their opinion on knowledge and ideas sharing in virtual environment, as well as with questions linked to their motivation to participate and circumstances under which they would participate in such co-creation activity with an automotive company. In the same section, the respondents were also asked to give their opinion on attitudinal and behavioural loyalty in case they would participate in co-creation activity. For each of the constructs included in conceptual model, several aspects, relevant to the literature, have been tested via three different Likert-type scale questions with a 5-point format ranging from 1: “It would not motivate me at all” to 5: “It would motivate me the most” for the third question, from 1: “Strongly disagree” to 5: “Strongly agree” for the first, fourth and fifth question and 1: “Totally not important” to 5: “Very important” for the second question. In the sixth question, the respondents were asked to indicate with “Yes” and “No” in which forms of virtual co-creation activities they have already participated. Finally, the last three questions relevant to demographic traits have been answered. Sleep (2012) asserts that the more the respondents enjoy the experience of an online survey questions, the better feedback in terms of quantity and quality is achieved. Therefore, to ensure the maximum valid response rate, I redesigned some questions to appear more game-like, by leveraging visual potential. I added some visual elements to the fifth and sixth questions, as well as in the introductory address.

Individuals were able to voluntarily decide whether they would participate in online questionnaire or not, since no reward was provided for those who would answer all the questions. Internet link to online questionnaire <https://www.1ka.si/a/48860> was published on Facebook and sent via e-mail to respondents, mostly related to my private and business sphere. Those individuals were asked to distribute the questionnaire further, in order to get a wide and complex range of respondents. Therefore, the sample has been a convenience sample. The questionnaire was posted 7 weeks from the middle of November, 2014 to the end of December, 2014. A total number of 537 people clicked on the link. I received 191 responses (34%), among which 14 respondents left the questionnaire incomplete. Table 5 provides sample characteristics of this study. The data were analysed using SPSS 20.0.

Table 5. Sample distribution (N=177)

Demographic factor	Frequency	Percentage
<b>Gender</b>		
Male	105	59.0
Female	72	41.0
Total	177	100.0
<b>Age</b>		
Under 20	7	4.0
21 – 30	91	51.0
31 – 40	21	12.0
41 – 50	26	15.0
over 50	32	18.0
Total	177	100.0
<b>Education</b>		
High School	47	27.0
Bachelor	105	59.0
Graduate	25	14.0
Total	177	100.0

### 4.3 Results

The objective of the section 4.3 is to describe the methodology and to interpret research results. Before turning to the hypotheses testing, I assess construct validity and reliability.

#### 4.3.1 Construct validity and reliability testing

In the following, I will evaluate the two basic research requirements: validity and reliability of measurement. Validity indicates that the measurement is valid or accurate, while reliability refers to the fact that outcomes of the measurement should always be repeatable.

##### 4.3.1.1 Validity assessment

Validity refers to the extent to which a measurement really measures what it claims to measure, or to the degree to which it represents characteristics that exists in the phenomenon (Gregory, 1992; Malhotra & Birks, 1999). According to Lakshmi and Mohideen (2013, p. 2755), a measure is valid when it cleanly measures the construct without including any other factors. In my research, I have tested two types of validity, which are the content and construct validity. Both are explained below.

**The content validity** refers to the adequateness of a set of measurement items reflecting theoretical domain of latent constructs they claim to measure. When a measurement item

scale is considered to have high content validity it contains of a group of different items which are appropriate to the specific scale (Babbie, 1998; DeVellis, 2003; Hinkin, 1998; Muchinsky, 1997).

To avoid the basic validity problem when using newly-developed scales, I borrowed the existing ones from previous studies, which were exploring the same constructs (section 4.2.1). The next step of content validity testing was to ensure that the measurement items were adequately translated and that the terminology was appropriately adapted to the Slovenian language. The latter was judged by an expert from Faculty of Economics, University of Ljubljana. Last but not least, the adjusted questionnaire was given to 13 respondents (students of Marketing Master program at Faculty of Economics, University of Ljubljana) in order to conduct a pre-test of the questionnaire and confirm whether the content was readable and understandable (section 4.2.2). The conclusion of the content validity test showed that the questionnaire met all the requirements needed.

**Construct validity** of a measure refers to the extent to which a measurement item relates to other measurement item according to theoretically based concepts (e.g. score on some scale) (Lakshmi & Mohideen, 2013; Malhotra & Birks, 1999). In practice, certain scores with respect to the theoretical paradigm must be considered, in order to test variables (items), whether they act as representations of the construct or not (Lakshmi & Mohideen, 2013, p. 2756).

In my research, I examined two types of the construct validity: convergent and discriminant validity. On one hand, the convergent validity is defined as evidence that different measurement items in the same construct converge in the same direction, meaning that convergent validity coefficients are high and statistically significant. On the other hand, the discriminant validity relates to the degree to which constructs deviate from each other, hence the discriminant validity coefficients are low and less than the convergent validity coefficients (Campbell & Fiske, 1959; Malhotra & Birks, 1999). Thus, I expect homogeneity within constructs and heterogeneity among constructs (Malhotra & Birks, 1999, p. 315).

In this research, the validity was assessed by factor analysis using SPSS 20.0 in order to examine constructs of theoretical conceptual model. There are several different methods used to conduct exploratory factor analysis, among which I chose Principal Axis Factoring (PAF). This method in particular seeks the least number of factors that can account for the common correlation of a set of variables (Ivancevic & Ivancevic, 2007, p. 54). Firstly, the principal component analysis (PCA) was used to draw out components for each construct separately. PCA is a variable-reduction technique which aims to reduce a larger set of variables into a smaller set of latent variables called principal components (Laerd, 2013). The components with eigenvalue higher than 1.0 were selected. In the following, I describe validity for each construct.

First of all, I have tested the construct **willingness to share knowledge and ideas**, which consists of three dimensions: achievement motive, affiliation motive, and power motive. Kaiser-Meyer-Olkin measure of sampling adequacy (KMO), which normally varies between 0 and 1, was 0.698, which is closer to 1 and considered to be appropriate. Also the Bartlett's test of sphericity, which tests the null hypothesis that the correlation matrix is an identity matrix, can be rejected. According to both tests, PCA could be conducted (UCLA, 2007). I retained three factors, which had eigenvalue higher than 1.0 and explained together for 55.843% of total variance (Scree Plot in Appendix D, Figure 1). In the following, Principal Axis Factoring method (PAF) with varimax rotation was used in order to understand how the variables are weighted for each factor and to see the correlation between the variables and the factor.

**Achievement motive.** The first dimension was measured by four items which were included in online questionnaire and described in the section 4.1. The achievement motive is defined as an individual's need of being personally competent, by trying to solve product problems or answer to other peoples' product problems, in order to get a sense of achievement. Rotated factor loadings (factor pattern matrix) are presented in the Table 6. Not all factor loadings for the achievement motive were highly significant (above 0.6), meaning that not all measurement items formed the achievement motive scale. Those items have been discarded from the following analysis. I have kept measurement items ACHIEVEMENT MOTIVE 1 and 3. These two items represents factor 2.

**Affiliation motive.** The second dimension consists of four items. It refers to an individual's need to share knowledge, common values and emotions as an individual feels the need of having a relationship with other participants inside a particular social group (e.g. online community) as described in section 4.1. It can be seen in the Table 6, that the factor loadings for affiliation motive were all higher than 0.6, hence highly significant, but loaded both onto factor 1 and factor 3. I decided to discard both reversed items AFFILIATION MOTIVE 1 and 4 since they were assessed not to be content related to factor 3. Therefore, I have kept items AFFILATION MOTIVE 2 and 3, which represent factor 3.

**Power motive.** The third dimension was measured by four items. It is defined as an individual's driver to control and influence other participants inside online community (see section 4.1). Factor loadings on factor 1 are presented in the Table 6. Measurement items POWER MOTIVE 2 and 3 were not significant (lower than 0.6), hence discarded from further analysis. I kept items POWER MOTIVE 1 and 3, which represent factor 1.



Table 6. Factor loadings of willingness to share knowledge and ideas items

	Factor		
	1	2	3
<b>ACHIEVEMENT MOTIVE 1</b>		<b>.746</b>	
ACHIEVEMENT MOTIVE 2 <sup>(1)</sup>			
<b>ACHIEVEMENT MOTIVE 3</b>		<b>.716</b>	
ACHIEVEMENT MOTIVE 4 <sup>(1)(2)</sup>			
AFFILIATION MOTIVE 1 <sup>(1)(2)</sup>	.629		
<b>AFFILIATION MOTIVE 2</b>			<b>.693</b>
<b>AFFILIATION MOTIVE 3</b>			<b>.603</b>
AFFILIATION MOTIVE 4 <sup>(1)(2)</sup>	.738		
<b>POWER MOTIVE 1</b>	<b>.718</b>		
POWER MOTIVE 2 <sup>(1)</sup>		.380	.538
<b>POWER MOTIVE 3<sup>(2)</sup></b>	<b>.615</b>		
POWER MOTIVE 4 <sup>(1)</sup>			

(1) discarded items

(2) reversed items

Secondly, the construct **customer's benefit** was tested. It consists of six dimensions (benefits): psychological benefit, financial benefit, hedonic benefit, learning benefit, social benefit and personal benefit described detailed in the section 4.1. KMO (0.887) and Bartlett's test of sphericity met the minimum standard before conducting PCA. Four factors retained which had eigenvalue higher than 1.0 explained together for 64.763% of total variance (Scree Plot in Appendix D, Figure 2). In the following, PAF method with oblimin rotation was used.

**Psychological benefit.** This type of benefit that relates to inner beliefs and values that an individual has, was measured by five items. Rotated factor loadings (factor pattern matrix) are presented in Table 7. Not all factor loadings for the psychological benefit were highly significant (above 0.6), meaning that not all measurement items formed the psychological benefit scale. Those items have been discarded from the following analysis. I have kept measurement items PSYCHOLOGICAL BENEFIT 4 and 5, since they have highly significant factor loading, as well as PSYCHOLOGICAL MOTIVE 1, as it is content related to common factor 4. Those three measurement items represent factor 4.

**Financial benefit.** This dimension of construct customer's benefit, which was measured by four items refers according to Hoyer et al. (2010, p. 289) to one of the most powerful extrinsic motives for participation in co-creation activity usually in the form of monetary prize, profit sharing or intellectual property. Rotated factor loadings (factor pattern matrix) are presented in the Table 7. All measurement items except FINANCIAL BENEFIT 4 had highly significant factor loading (above 0.6) meaning that just three measurement items

FINANCIAL BENEFIT 1, 2 and 3 formed the financial benefit scale. Those items represented factor 2.

**Learning benefit.** This dimension measured by two items represents an individual's drive to capture additional information about products, get new or improve existing skills, as well as learn about new technologies. Both measurement items LEARNING BENEFIT 1 and 2 have highly significant factor loading (above 0.6), therefore, they form the learning benefit scale and represent factor 1.

**Social benefit.** This dimension was measured by four items. It is defined as an individual's desire to achieve shared goals of a particular social group that shares common interests by becoming its member. Amongst four measurement items only SOCIAL BENEFIT 2 and 4 had highly significant factor loading (above 0.6). Item SOCIAL BENEFIT 3 has been kept due to content adequacy of common factor 3. In addition, item SOCIAL BENEFIT 1 has been discarded from further analysis, according to low factor loading. Therefore, SOCIAL BENEFIT 2, 3, and 4 form the social benefit scale and represent factor 3.

Table 7. Factor loadings of customer's benefit

	Factor			
	1	2	3	4
<b>PSYCHOLOGICAL BENEFIT 1</b>				<b>-.514</b>
PSYCHOLOGICAL BENEFIT 2 <sup>(1)</sup>	.490			
PSYCHOLOGICAL BENEFIT 3 <sup>(1)</sup>	.364			-.388
<b>PSYCHOLOGICAL BENEFIT 4</b>				<b>-.926</b>
<b>PSYCHOLOGICAL BENEFIT 5</b>				<b>-.787</b>
<b>FINANCIAL BENEFIT 1</b>		<b>.619</b>		
<b>FINANCIAL BENEFIT 2</b>		<b>.690</b>		
<b>FINANCIAL BENEFIT 3</b>		<b>.643</b>		
FINANCIAL BENEFIT 4 <sup>(1)</sup>				-.447
HEDONIC BENEFIT 1 <sup>(1)</sup>	.653			
HEDONIC BENEFIT 2 <sup>(1)</sup>			-.505	
<b>LEARNING BENEFIT 1</b>	<b>.957</b>			
<b>LEARNING BENEFIT 2</b>	<b>.683</b>			
SOCIAL BENEFIT 1 <sup>(1)</sup>	.416			
<b>SOCIAL BENEFIT 2</b>			<b>-.821</b>	
<b>SOCIAL BENEFIT 3</b>			<b>-.560</b>	
<b>SOCIAL BENEFIT 4</b>			<b>-.952</b>	
PERSONAL BENEFIT 1 <sup>(1)</sup>				-.527
PERSONAL BENEFIT 2 <sup>(1)</sup>	.430			

(1) discarded items

Finally, remaining two dimensions (**hedonic benefit** and **personal benefit**) have low factor loadings; therefore, they have been entirely excluded from the further analysis.

The third construct to be tested was the **reciprocal communication**. According to Prahalad and Ramaswamy (2004, p. 31), it refers to one of the main “key building blocks” for co-creation activity, which is described as a successfully established dialog between customer and co-creating company (section 4.1). It was measured by three measurement items. KMO (0.676) and Bartlett’s test of sphericity met the minimum standard before conducting PCA. As expected, according to theoretical conceptual model, only one factor was retained (eigenvalue higher than 1.0). It explained together for 68.843% of total variance.

Next, validity for the construct **affective commitment to the company**, which was measured by four measurement items, was tested. It indicates the customer’s attachment to the company in terms of shared values, sense of liking or belonging and may lead to an emotional affiliation to the company as described in section 4.1. KMO (0.786) and Bartlett’s test of sphericity met the minimum standard before conducting PCA. As expected, only one factor which explained together for 75.689% of total variance was retained (eigenvalue higher than 1.0).

Finally, the **loyalty construct**, which consists of the **attitudinal** and **behavioural loyalty**, was tested for validity. The attitudinal loyalty was measured by six measurement items and behavioural loyalty by two measurement items, hence eight items in total. KMO (0.901) and Bartlett’s test of sphericity met the minimum standard before conducting PCA. According to the theoretical conceptual model, I expected PCA to draw out two separate factors, since there are two different constructs of loyalty. In contrast, only one factor, which explained together for 66.977% of total variance was retained (eigenvalue higher than 1.0).

#### 4.3.1.2 Reliability tests

After validity, the next step was to test reliability, which indicates the degree to which outcomes of the measurement of the particular test are repeatable. Therefore, the greater the degree of consistency of repeated measurements, the greater is the reliability (Malhotra & Birks, 1999, p. 313).

To evaluate the reliability of measures, Cronbach’s alpha coefficient was used. It is defined as the test reliability technique and the average of the reliability coefficients for all possible combinations of items when split into half-tests (Gliem & Gliem, 2003, p. 84). The coefficient normally ranges between 0 and 1.0. The closer it is to 1.0, the greater is the internal consistency of measurement items in the scale (Sharma, 1996, p. 118). According to George and Mallery (2003, p. 231) the following rules of thumb for Cronbach’s alpha coefficient are as follows: > 0.9 – excellent, > 0.8 – good, > 0.7 – acceptable, > 0.6 –

questionable,  $> 0.5$  – poor and  $< 0.5$  – unacceptable. The recommended value is 0.7 (Sharma, 1996, p. 118).

In the Table 8, Cronbach's alpha coefficients calculated using SPSS 20.0 reliability procedures are presented. It can be seen that reliability coefficients for all construct/dimensions separately are greater than 0.600. However, according to Cronbach's alpha, reliability for dimensions affiliation motive, power motive and financial benefit is questionable. Since Cronbach's alpha coefficients for dimensions achievement motive, learning benefit, as well as for construct reciprocal communication are between 0.700 and 0.800, reliability for those measures is acceptable. In the following, reliability for dimensions psychological and social benefit, as well as for construct affective commitment is perceived as good (Cronbach's alpha coefficient is between 0.800 and 0.900). Last but not least, reliability for loyalty construct is excellent as Cronbach's alpha coefficient value is greater than 0.900.

Table 8. Reliability of scales

<b>Constructs/ sub-construct</b>	<b>Number of items</b>	<b>Cronbach's alpha value</b>
ACHIEVEMENT MOTIVE	2	0.734
AFFILIATION MOTIVE	2	0.600
POWER MOTIVE	2	0.622
LEARNING BENEFIT	2	0.771
FINANCIAL BENEFIT	3	0.689
SOCIAL BENEFIT	3	0.847
PSYCHOLOGICAL BENEFIT	3	0.824
RECIPROCAL COMMUNICATION	3	0.771
AFFECTIVE COMMITMENT	4	0.892
LOYALTY	8	0.925

#### 4.3.2 Antecedents to co-creation activity

A series of independent samples t-test was run to test for any differences in antecedent factors between groups of respondents who have participated and not participated in each of five co-creation activities included in the questionnaire, on their future participation in this form of co-creation activity with an automotive company. Those five types of co-creation were discussed in section 1.3.3 and illustrated in the Table 3. Results are presented in the Appendix C.

The independent sample t-test analysis shows statistically significant differences between individuals that have already participated in co-creation as product conceptualisers and those individuals that have not participated in such co-creation activity yet. Differences can be found in importance of achievement motive ( $t = -2.132$ ;  $p = 0.034$ ), affiliation motive ( $t$

= -2.218;  $p = 0.028$ ) and social benefit ( $t = -2.185$ ;  $p = 0.030$ ) on their participation in co-creation activity as product conceptualisers. Achievement motive, affiliation motive and social benefit motivate respondents, who have already participated in co-creation activity as product conceptualiser more than those individuals that have not participated this form of co-creation yet.

Next statistically significant difference has been found between respondents who have already participated as product designers and those individuals who have not participated in this type of co-creation activity yet. Differences can be found in the importance of reciprocal communication between customers and co-creating company ( $t = -2.341$ ;  $p = 0.020$ ) and in achievement motive ( $t = -1.977$ ;  $p = 0.050$ ). For individuals that have not participated in co-creation activity as product designers yet, the reciprocal communication and achievement motive represent much more important factor, which influence their future participation in co-creation activity as product designers, than for those individuals that have already participated in this type of co-creation.

The following important statistical difference between respondents that have already had a role of product tester and those respondents who have not had it yet, relates to the achievement motive ( $t = -2.392$ ;  $p = 0.018$ ) and learning benefit ( $t = -2.214$ ;  $p = 0.028$ ). Individuals that had such a role are driven by the achievement motive in a stronger extent than respondents that have not tried it yet. On the other hand, the learning benefit motivates respondents that have not participated in this co-creation activity yet more than it does for respondents that have already done it.

The independent sample t-test also showed an important statistical difference regarding achievement motive ( $t = -2.865$ ;  $p = 0.005$ ) between respondents that have participated in co-creation activity as product support specialists and those respondents that have not participated in such type of co-creation yet. According to the results in the Appendix C, achievement motive influences participation in product support specialist co-creation more when respondents have already participated in this type of co-creation activity.

Finally, the independent sample t-test showed no statistically significant difference regarding factors described in section 4.1, between respondents who have already participated in co-creation activity as **product marketer** and respondents who have not participated in such co-creation activity yet.

To sum up, in four out of five co-creation types (product conceptualiser, product designer, product tester and product support specialist), independent sample t-test found statistically significant difference regarding achievement motive between respondents who have already participated in co-creation activity and respondents that have not participated in such co-creation activity yet. In addition, there were statistically significant differences found with affiliation motive (product conceptualiser), social benefit (product conceptualiser), learning benefit (product tester) and reciprocal communication between customer and company (product designer).

### 4.3.3 Hypotheses testing

This part of the research will focus at the predicting powers of constructs and dimensions on the dependent variable using logistic regression and linear regression. Both methods will be conducted in order to explore if the established hypotheses described in the section 4.1 can be confirmed or disconfirmed.

To evaluate the conceptual model, I employed a regression analysis. As respondents' participation in each of co-creation activities was measured as a nominal variable, I used binomial logistic regression to test hypotheses H1–H4. Hypotheses related to the linkages between outcome constructs H5–H7 were tested by using ordinary least squares regression.

With binomial logistic regression, I tried to estimate the probability of the Slovenian car buyers' participation in co-creation activity, based on their motivations and perceived benefits gained from co-creation activities. This type of regression is usually used in order to predict whether cases can be correctly classified (predicted) from the independent variables. For purpose of this research, logistic regression was performed to ascertain the effects of independent variables (willingness to share knowledge and ideas, customer's benefit, reciprocal communication and affective commitment to the company) on the likelihood of Slovenian car buyers' participation in any amongst five co-creation activities (dependent variable). As seen in the section 1.3.3, the type of co-creation activity (product conceptualiser, product designer, product tester, product support specialist, product marketer) depends on customers' role in co-creation process in virtual environment. The results are presented in the Appendix F.

Firstly, the logistic regression model for product designer co-creation activity (Appendix F, Table 8) was statistically significant,  $\chi^2(9) = 19.915$ ,  $p(0.018) < 0.05$ . The model explained 16.9% (Nagelkerke  $R^2$ ) of the variance in participation in co-creation activity and correctly predicted 81.3% of cases. The achievement motive was associated with an increased likelihood of participation in co-creation activity, while reciprocal communication was associated with a reduction in the likelihood of participation in co-creation activity.

Secondly, the logistic regression model for product tester co-creation activity (Appendix F, Table 9) was statistically significant,  $\chi^2(9) = 21.737$ ,  $p(0.010) < 0.05$ . The model explained 19.2% (Nagelkerke  $R^2$ ) of the variance in participation in co-creation activity and correctly predicted 81.8% of cases. The achievement motive and learning benefit were associated with an increased likelihood of participation in co-creation activity, while the psychological benefit was associated with a reduction in the likelihood of participation in co-creation activity.

Finally, the logistic regression model for product support specialist co-creation activity (Appendix F, Table 10) was not statistically significant,  $\chi^2(9) = 12.132$ ,  $p(0.206) > 0.05$ . The model explained 9.6% (Nagelkerke  $R^2$ ) of the variance in participation in co-creation

activity and correctly predicted 72.2% of cases. The achievement motive was associated with an increased likelihood of participation in this type of co-creation activity.

Logistic regression models for product conceptualiser (Appendix F, Table 7) and product marketer co-creation activities (Appendix F, Table 11) have not shown any statistically significant coefficients. Therefore, I conclude that the chosen key factors do not have any influence on probability of the Slovenian car buyers' participation in both types of co-creation activity.

In the next step, multiple regressions were conducted to explore whether participation of the Slovenian car buyers in such co-creation activity influences the customers' loyalty toward this automobile brand. The co-creation variable was previously formed by summing up all five types of the consumers' roles in the co-creation activity for each respondent, explained in the Table 3 in section 1.3.3. The value of multiple correlation coefficients, considered to be a measure of prediction quality of the dependent variable (customer loyalty toward automobile brand) is of 0.257. This indicates a relatively weak level of prediction. Moreover, the results in the Table 9 show that impact of co-creation on loyalty is not statistically significant  $F(1, 174) = 3.425$ ,  $p(0.066) > .05$ ,  $R^2 = 0.019$ . Therefore, participation in the co-creation activity does not affect the Slovenian car buyers' loyalty toward an automobile brand.

Table 9. Estimated coefficient of multiple regression

Independent variable (x)	Unstandardized Coefficients		t	Sig.
	$\beta$	Std. Error		
(CONSTANT)	26.458	.728	36.336	.000
CO-CREATION	.688	.372	1.851	.066

#### 4.3.4 The findings

In order to understand, which amongst the chosen key factors influence participation of the Slovenian car buyers in co-creation activity, I carried out a logistic regression analysis (see Appendix F). Among independent variables, affiliation, power motive, as well as financial benefit, social benefit, and affective commitment to the company, none have significantly influenced participation in any type of co-creation activity. Thus, the hypotheses H1b, H1c, H2a, H2e and H4 were not supported. Hypotheses H2c and H2d could not be tested, since they were proved, according to the validity assessment (see section 4.3.1.1), to have very low factor loadings, therefore, they were entirely excluded from the research, even before conducting the logistic regression. On the other hand, the independent variables: achievement motive, reciprocal communication between customer and company, as well as learning benefit and psychological benefit were significant predictors of co-creation (see Table 10). However, the variable significance has not been a sufficient proof to support

hypotheses H1a, H2b, H2f and H3 yet. The results in the Table 10 imply that reciprocal communication between customer and co-creative company reduces the likelihood of Slovenian car buyers' participation in co-creation activity as product designers ( $\beta = -0.736$ ,  $p < 0.05$ ). The same effect has the psychological benefit on participation in product tester co-creation activity ( $\beta = -0.949$ ,  $p < 0.05$ ). Therefore, the hypotheses H2f and H3 have not been supported.

Table 10. Summary overview of statistically significant relationships between antecedent constructs and co-creation activity

Co-creation activity	Independent variable (x)	Unstandardized Coefficients		Wald	Df	Sig.
		$\beta$	Std. Error			
Product designer	ACHIEVEMENT MOTIVE	*0.577	0.241	5.715	1	0.017
	RECIPROCAL COMMUNICATION	*-0.736	0.248	8.811	1	0.003
Product tester	ACHIEVEMENT MOTIVE	*0.725	0.275	6.931	1	0.008
	LEARNING BENEFIT	*0.840	0.354	5.629	1	0.018
	PSYCHOLOGICAL BENEFIT	*-0.949	0.432	4.832	1	0.028
Product support specialist	ACHIEVEMENT MOTIVE	*0.571	0.210	7.400	1	0.007

Note. \* $p < 0.05$

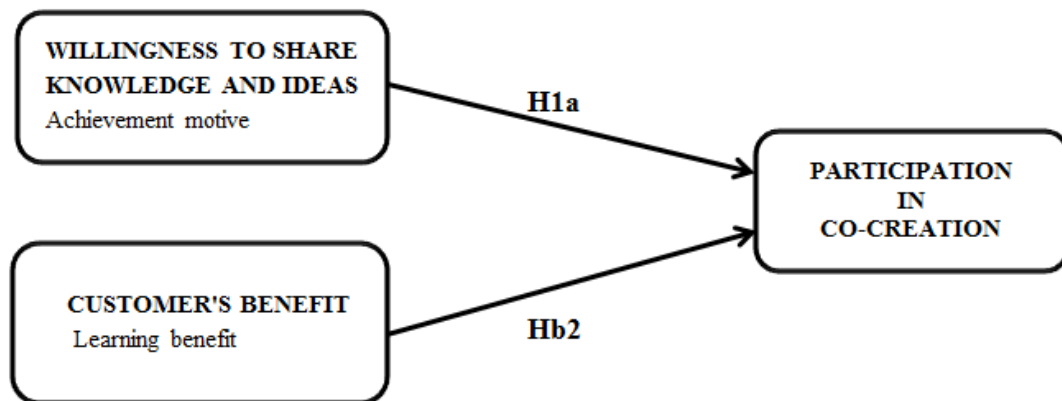
Moreover, the achievement motive was significant in increasing the likelihood of the Slovenian car buyers' participation in three different types of virtual co-creation activity – as product designer ( $\beta = 0.577$ ,  $p < 0.05$ ), product tester ( $\beta = 0.725$ ,  $p < 0.05$ ) and product support specialist ( $\beta = 0.571$ ,  $p < 0.05$ ), which supported the hypothesis H1a. In addition, the learning benefit increases the probability of Slovenian car buyer's participation in co-creation activity as the product tester ( $\beta = 0.840$ ,  $p < 0.05$ ), which supported hypothesis H2b.

In the second part, I tried to explore whether participation in co-creation activity increases Slovenian customers' loyalty toward a particular automotive brand. My theoretical research model illustrated in the Figure 7 indicates two separate dimensions of customers' loyalty which are attitudinal and behavioural loyalty. However, as explained in the section 4.3.1.1, PCA extracted just one factor, therefore, customer loyalty was considered as one



common construct, instead of two. Therefore, the hypotheses H5, H6 and H7 could not be supported automatically. However, in order to test whether participation in the co-creation activity increases customers' loyalty (the attitudinal and behavioural loyalty as one single construct) toward a particular automobile brand, multiple regression analysis was conducted. Results presented in the Table 9 indicate that participation of Slovenian car buyers' in co-creation activity has not significantly influenced loyalty toward this particular automotive brand ( $\beta = 0.688$ ,  $p > 0.05$ ).

Figure 8. Empirical model



## 5 DISCUSSION

The goal of this chapter is to interpret the main findings of the quantitative part of my research and to provide a summary of antecedents and consequences of car buyers' active participation in co-creation activity of an automotive company in Slovenia. In the next part, I will outline managerial implications of co-creation activity in the Slovenian automotive context and explain the main contributions of my master's thesis. Finally, I will address the limitations of my study and suggest avenues for future research, which should be considered.

### 5.1 Interpretation of research results

In my research, I found mixed results pertaining to the relationship between key factors influencing customers' participation in co-creation activity and actual participation, as well as to the relationship between co-creation activity and customers' loyalty in the automotive industry.

Firstly, the findings indicate that the achievement motive is an important factor of Slovenian car buyers' knowledge sharing, which positively influences their participation in a co-creation activity in automotive industry. According to the previous studies, individuals with strong achievement motive need a feeling of competition, challenge, and accomplishment of goals in order to gain a sense of competence (Ardichvili et al., 2003; Butler, 2001). Therefore, those individuals feel a sense of personal achievement, when

solving product problems or answer to other participants' product problems (Ardichvili et al., 2003; Brown & Duguid, 2000). In my research context, participants can use virtual co-creation platform as the channel in which their achievement motive can play an important role. In addition, such virtual platform normally provides participants with a particular task to be accomplished through submitting vehicle design ideas, which allows those individuals to express their inner motives through participating in such activities. This enables participants to express suggestions to the automotive company regarding new vehicle design ideas (Brown et al., 2003; Deci & Ryan, 1980). These findings are in line with the previous research which indicates that individuals with an important achievement motive acknowledge their contribution and participation in virtual environment or online community to be of a great importance.

Secondly, the research found that learning benefit has a positive influence on individuals' participation in a co-creation activity in automotive industry. According to the literature review, individuals might be motivated by an inner desire to gain certain knowledge by participating in forums and development groups run by the manufacturer, since they can reap a particular cognitive benefit from information acquisition and learning (Nambisan & Baron, 2009; Hoyer et al., 2010). Put in other words, learning or educational benefit, gained through engaging into co-creation, relates to an individual's desire to learn from or about the technology that facilitates a certain product or service, as well as to acquire a particular knowledge that may be perceived as valuable (Hoyer et al., 2010, p. 288). Therefore, in my research context, the Slovenian car buyers are motivated to participate in a co-creation activity, as long as they reap a certain level of knowledge in sphere of automotive industry, web-based vehicle editor functionalities, industrial design or concept generation process.

Finally, according to the recent marketing literature, co-creation strategy, which is defined as an active engagement of target customers in the process of value creation, reinforces long term relationship between customers and company, as well as customers' loyalty. However, my results have not provided any empirical support that the Slovenian car buyers' participation in co-creation activity positively influences customers' loyalty toward automotive brand. Therefore, I cannot conclude that co-creation activity in automotive industry automatically influences customers' loyalty.

## **5.2 Managerial implications**

The results of this study have several implications for managers in automotive industry.

Firstly, nowadays increased competition and complex customer needs have forced companies to develop new marketing strategies in order to meet those needs. In practice, companies often have difficulties to develop skills and processes needed for an effective delivery of co-creation of value – they often fail to successfully integrate consumers in co-creation activities. Therefore, managers may need to institute certain cultural changes in

their organisations, in order to draw customers into the co-creation process, especially in a high-paced industry such as automotive sector. For this reason, managers should facilitate customers' access to desirable experience.

Secondly, my study has implications for developing individuals' achievement motive, which is encouraging customers' belief that they are sufficiently competent to share their vehicle design ideas, as well as strengthening their perception that they are confident enough to submit ideas on virtual platform and share their knowledge with their favourite automotive company. Therefore, managers in the automotive industry should carefully plan co-creative activities, which encourage competition amongst participants and provide customers with challenging tasks that enable them to gain a sense of competence, personal achievement and opportunity to solve product problems or answer to other participants' product problems.

Thirdly, increasing customers' motivation to participate in a co-creation activity in automotive industry involves managing customers' perceived benefit, in particular learning benefit. Individuals, who expect from participation in co-creation activity to develop existing or new skills, as well as to gain technology knowledge, for example functionalities of web-based vehicle design editor, will make the most of their co-creation opportunities and will be more likely to participate in co-creation activities organised by automotive companies.

Finally, I hope that my empirical study will provide helpful guidance for managers in the automotive industry to determine the best way to successfully engage target customers in co-creation process to increase company's performance.

### **5.3 Study limitations**

Some decisions made during my empirical research may limit the generalizability of the results.

Firstly, and perhaps the most important, I based my conceptual research model on studies that researched the following industries: financial, advertising, travel, industrial, medical, marketing, and CRM services, as well as food and manufacturing industry. Therefore, I considered a possibility that findings derived from previous studies may not be applicable to automotive industry. In addition, those researches focused mainly on service sector, which is not entirely in line with durable goods industry. The results may have been more encouraging, in case the research would base on previous studies carried out in the automotive industry.

Secondly, this study fails to fully explain the antecedents of the Slovenian car buyers' participation in co-creation activity in the automotive industry in full extent, since not all possible contributing factors were examined. Other factors related to customer or to

company may also have a significant effect of customers' participation in co-creation activity such as openness, uniqueness of problem, clarity of task, trust and rapport, commitment to common goals, customers' expertise, etc. (Auh et al., 2007; Hakanen & Jaakkola, 2012). However, these factors were beyond the scope of my study.

Thirdly, according to the strong theoretical background, I treated the customer loyalty construct as a combination of two separate dimensions – attitudinal loyalty and behavioural loyalty. Therefore, to measure attitudinal loyalty, I adapted existing scales of authors Kuikka and Laukkanen (2012, p. 536) and Auh et al. (2007, p. 363). Likewise, for behavioural loyalty, I borrowed a two-item scale created by Kuikka and Laukkanen (2012, p. 536). Since PCA analysis extracted only one factor instead of two expected according to conceptual research model, I conclude that measurement scale created by Kuikka and Laukkanen (2012, p. 536) for exploring antecedents of behavioural loyalty in the chocolate market was not appropriate for the context of automotive industry. In addition, the chosen scale measures the purchase intent, rather than the behavioural loyalty. The latter could be measured mostly with past purchases, which would be a quite complex task in the scope of automotive industry.

Finally, there are also some methodological limitations that have to be taken into consideration when evaluating the results of this study. Firstly, the factor analysis is a technique that requires a large sample size. It is based on the correlation matrix of variables involved in the study, and correlations need at least 200 respondents before they stabilize. My sample size was of 177 respondents, which may not have been sufficient. Therefore, I would encourage future researchers to enlarge sample size especially by including respondents over the age of 30. Different age structure, as well as the size of sample could result in different final conclusions. Secondly, validity of measurement scales was difficult to achieve especially when adapting existing ones borrowed from previous studies. The main problem when borrowing scales from previous studies was the industry specificity.

## **CONCLUSION**

Involving customers to co-create value is an important new marketing strategy for any company striving to meet customers' needs and to gain competitive advantage. The changes in technology, competitiveness and market demands transformed the way companies operate. Managers abandoned traditional product-centric value generation process and shifted their focus on leveraging external resources, especially by engaging empowered and educated customers, in order to produce products which will efficiently fulfil customers' needs, increase productivity, effectiveness and will lead to brand loyalty (Prahalad & Ramaswamy, 2004; Zhang & Chen, 2008).

Environmental changes, strong competitiveness, growing globalisation and often unclear or highly complex customers' behaviour, have required automotive companies to speed up

the automobile development process. Car producers that delay with introducing new car models, risk of falling behind their competitors. Due to unlimited access to information, customers nowadays know exactly what they want. Therefore, automotive manufacturers such as Ford, Volkswagen or Fiat often use this to their advantage.

The major objective of my master's thesis was to find answers to three main research questions considering co-creation activity amongst Slovenian car buyers. First, since there is little knowledge about key antecedents of co-creation activity in automotive industry, I tried to understand which amongst chosen factors would positively influence participation of Slovenian car buyers in co-creation activity with an automobile company. Second, I intended to examine whether such participation would influence a greater customers' loyalty, both attitudinal and behavioural, toward an automotive brand. Finally, I tried to get an answer whether attitudinal loyalty amongst participants has a predictive path, which leads toward behavioural loyalty.

According to my study, automotive companies that aim to introduce co-creation marketing strategy into their business process should, in order to boost participation in co-creation activity amongst Slovenian car buyers understand how to successfully engage target customers. Firstly, they have to find a way how to convince customers to share their valuable ideas and knowledge. In particular, companies have to focus on co-creation tasks that will boost customers' achievement motive, which include a desire to compete, challenge and a sense of competence. Secondly, companies should ensure that all the customers who participate in co-creation activity will gain additional knowledge about automotive industry, functionalities of web-based vehicle editor tool, industrial design or concept generation process.

The complex multi-dimensional concept of brand loyalty plays an important role in a long-term financial stability of any company. Therefore, brand loyalty is often a crucial factor for a company's survival. Moreover, the importance of retaining current customers and making them loyal to the brand strongly increases with the level of industry competitiveness. Hence, in order to ensure a continuous stream of revenue, automotive companies should understand, how to achieve that customers develop a favourable attitude toward their brand, which they will purchase consistently in the future. Several authors confirmed dependence between customers' participation in co-creation activity and brand loyalty stating that attitudinal loyalty is significantly and directly related with co-creation, while behavioural loyalty is significantly associated further to behavioural loyalty (Auh et al., 2007; Sheppard, Hartwick, & Warshaw, 1988). However, there is still little knowledge concerning such phenomenon in the automotive industry. According to my research, the future customers' loyalty does not depend on whether customers participate in co-creation activity but on other factors, which influence their favourable attitude toward a brand. Since this master's thesis fails to confirm the relationship between participation in co-creation activity and customers' loyalty, the last research question exploring the predictive path between attitudinal loyalty and behavioural loyalty in automotive industry remains

unanswered. Therefore, I cannot generalise Oliver's (1999, p. 35) findings on the automotive industry that attitudinal loyalty leads to behavioural loyalty.

To conclude, co-creation activities are still largely unknown amongst Slovenian customers, since there is still an important percentage of those individuals, who have never participated in co-creation activity in virtual environment as product conceptualiser (83%), product designer (80%), product tester (83%), product support specialist (72%), or product marketer (63%). To get an insight what motivates the Slovenian customers to participate in co-creation activity, this master's thesis provides some valuable insights into the key factors boosting their participation in co-creation activity in automotive industry, which is a quite unknown field of marketing research. The achievement motive and learning benefit were confirmed as antecedents of customers' participation in co-creation activity, while the influence of other chosen factors could not be identified. Probably, there are other motives boosting the participation in co-creation activity, not considered in the scope of this study. Moreover, in the context of automotive industry my research has not proved that co-creation has an important role to play in building customers loyalty.

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## **APPENDIXES**



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## Appendix A: Main categories of brand loyalty measures

Table 1. Main categories of brand loyalty measures

	Type of measure	Researchers	Focus of the study	Method of measurement
Attitudinal - brand oriented measures	Stated purchase intentions/ preference measures	Brown (1993)	Preferences on purchase behaviour	Which brand do you prefer?
	Commitment measures	Bloemer (1993)	Level of commitment toward a brand	Mean level of commitment
Attitudinal - individual oriented measures	Measures on product category level	Jacoby (1971)	Variation of individual's attitude toward a certain brand from absolutely acceptable to absolutely unacceptable	Acceptance-rejection scale
	General measures	Raju (1980)	Estimation of brand loyalty by general individual's behaviour statements	Scores based on level of agreement or disagreement with statements
Behavioural brand - oriented measures	Measures based on aggregated switching matrices	Massy, Montgomery, & Morrison (1970)	Conditional probability of choosing brand Y, considering that brand X was chosen on the previous purchase occasion	Markov matrix
	Measures based on market shares	Cooper & Nakanishi (1988)	Brand's market share determines its attractiveness toward the other brands	Market-share attraction model
	Measures based on individual-level data	Guadagni & Little (1983)	Individual's sequence of purchases	$BL_j^h(n) = \alpha BL_j^h(n-1) + (1 - \alpha)HISTROY$

table continues

continued

	<b>Type of measure</b>	<b>Researchers</b>	<b>Focus of the study</b>	<b>Method of measurement</b>
Behavioural individual - oriented measures	Proportion-of-purchase measures	Chunningham (1956)	A market share of brands within a household	Market share criterion
	Sequence-of-purchase measures	Tucker (1964)	Sequence of consecutive purchases of the same brand	"Three in a row" criterion
Mixed measures	Mixed measures	Pessemier (1959)	The price-premium a customer is willing to pay for a brand	The dollar metric procedure

## Appendix B: A questionnaire in the Slovenian language

### Soustvarjanje novega koncepta avtomobila

Pozdravljeni,

pripravljam magistrsko delo na Ekonomski fakulteti Univerze v Ljubljani o **sodelovanju kupcev pri razvoju novih avtomobilov**. Prav vaši odgovori na spodnjo anketo, ki vam bo vzela približno 7 minut, mi bodo pomagali izvesti zastavljeno raziskavo in pripomogli k njeni uspešnosti. Anketa je anonimna, pridobljeni podatki pa bodo uporabljeni izključno v raziskovalne namene tega magistrskega dela.

Najlepša hvala za vaše sodelovanje.

Tesa Gregorc

Preden pričnete z reševanjem ankete, si zamislite, da z vašim predlogom konceptnega dizajna avtomobila sodelujete na natečaju preko družbenega omrežja z naključnim avtomobilskim podjetjem.



Sedaj, ko si predstavljate, da ste aktivno vpleteni v natečaj za najboljši konceptni dizajn avtomobila, označite na lestvici od 1 do 5, kako POMEMBNO bi se vam zdelo, da bi podjetje ... (1: Zelo nepomembno; 5: zelo pomembno)

	Zelo nepomembno 1	2	3	4	Zelo pomembno 5
... redno obveščalo o prejetih ocenah (uvrstitvi) vseh objavljenih konceptnih idej avtomobilov, ki sodelujejo v natečaju, glede na število glasov.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... dobro razložilo način uporabe računalniškega orodja za načrtovanje koncepta avtomobila.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
... vedno podalo zadostne in oprijemljive informacije o obstoječih modelih avtomobilov.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Spodnje trditve se nanašajo na vaše značajske lastnosti ter na vašo pripravljenost do delitve idej preko družbenega omrežja z naključnim avtomobilskim podjetjem. Na lestvici od 1 do 5 izrazite svoje (ne)strinjanje s posamezno trditvijo (1: Sploh se ne strinjam; 5: Se povsem strinjam).**

	Sploh se ne strinjam 1	2	3	4	Se povsem strinjam 5
Verjamem, da sem dovolj kompetenten(na) za podajanje novih idej na področju avtomobilizma.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bojim se, da bi se moje ideje udeležencem družbenih omrežij zdele dolgočasne.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zahtevnih nalog ne maram predstavljati na kasneje.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rad(a) komuniciram z udeleženci na družbenih omrežjih.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Želim si, da bi ljudi s katerimi komuniciram preko družbenih omrežij spoznal(a) tudi v živo.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bojim se, da bi bile moje ideje slabo sprejete med udeleženci družbenih omrežij.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

table continues

continued

	Sploh se ne strinjam 1	2	3	4	Se povsem strinjam 5
Dovolj sem samozavesten(na), da sem pripravljen(a) svoje ideje deliti z avtomobilskim podjetjem.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Predvidevam, da bi v spletni diskusiji moje objave dobile nizko število glasov.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bojim se, da nimam dovolj znanja o avtomobilizmu.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Želim si, da bi lahko vplival(a) na druge udeležence družbenih omrežij.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bojim se, da bi me drugi udeleženci družbenega omrežja preglasovali.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Želim si biti cenjen(a) s strani drugih udeležencev družbenega omrežja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Na lestvici od 1 do 5 ocenite, kako močno bi vas posamezen dejavnik MOTIVIRAL K SODELOVANJU pri zgoraj opisanem natečaju (1: Me sploh ne bi motiviralo; 5: Bi me zelo motiviralo).**

	Me sploh ne bi motiviralo 1	2	3	4	Bi me zelo motiviralo 5
Zabava in dobro počutje	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Popust pri nakupu avtomobila	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Občutek doživetja	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Možnost izboljšave obstoječega modela avtomobila	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utrditev obstoječih ali razvoj novih spretnosti	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

table continues

continued

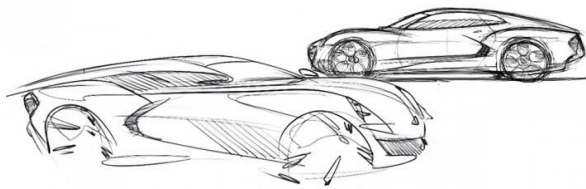
	Me sploh ne bi motiviralo 1	2	3	4	Bi me zelo motiviralo 5
Razvoj računalniških spretnosti (npr. uporaba računalniškega orodja za razvoj dizajna koncepta avtomobila)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Utrditev obstoječega ali razvoj novega odnosa z avtomobilskim podjetjem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Denarna nagrada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Možnost osebnega razvoja	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dvig ugleda na družbenem omrežju	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delitev dobička z avtomobilskim podjetjem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pripadnost skupini, katere udeleženci si delijo enake interese	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pozitiven vpliv na razvoj moje kariere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Možnost osebnega izražanja	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelektualna lastnina (npr. patentiran dizajn)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zanimivost naloge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nov izziv	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Občutek odobravanja pri udeležencih družbenega omrežja	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pobeg iz vsakodnevne rutine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Na lestvici od 1 do 5 izrazite svoje (ne)strinjanje s posamezno trditvijo (1: Sploh se ne strinjam; 5: Se povsem strinjam).**

**Za sodelovanje v zgoraj opisanem natečaju z avtomobilskim podjetjem bi se odločil(a) le v primeru, da ...**

	Sploh se ne strinjam				Se povsem strinjam
	1	2	3	4	5
bi se pri tem podjetju počutil(a) domače.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bi mi to podjetje osebno veliko pomenilo.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bi bil(a) čustveno navezan(a) na to podjetje.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bi čutil(a) močno pripadnost temu podjetju.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Sedaj me zanimajo vaša stališča glede KASNEJŠEGA NAKUPA avtomobila tega proizvajalca oz. glede vaše zvestobe temu avtomobilskemu podjetju, v primeru, da STE SODELOVALI v natečaju. Na lestvici od 1 do 5 izrazite svoje (ne)strinjanje s posamezno trditvijo (1: Sploh se ne strinjam; 5: Se povsem strinjam).**





	Se sploh ne strinjam				Se povsem strinjam
	1	2	3	4	5
Temu avtomobilskemu podjetju sem pripaden(a) bolj kot avtomobilskim podjetjem, s katerimi nisem sodeloval(a) pri soustvarjanju novega koncepta avtomobila.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ko bom naslednjič kupoval(a) avtomobil, se bom odločil(a) za to podjetje.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pripravljen(a) sem plačati višjo ceno za nakup avtomobila tega podjetja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To avtomobilsko podjetje imam raje od ostalih.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Svojim sorodnikom in znancem priporočam nakup avta tega podjetja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Možnost, da zamenjam znamko proizvajalca avtomobila, je malo verjetna.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kupoval(a) bom vozila tega podjetja za privatno ali službeno uporabo.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
V prihodnosti bom nadaljeval(a) s kupovanjem avtomobilov tega podjetja.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Spodnje aktivnosti soustvarjanja novih izdelkov preko virtualnih platform (družbena omrežja) ovrednotite z “Da” v kolikor ste v njih že sodelovali, oziroma z “Ne”, v kolikor še niste nikoli. Ob vsaki od aktivnosti je prikazan primer iz prakse.





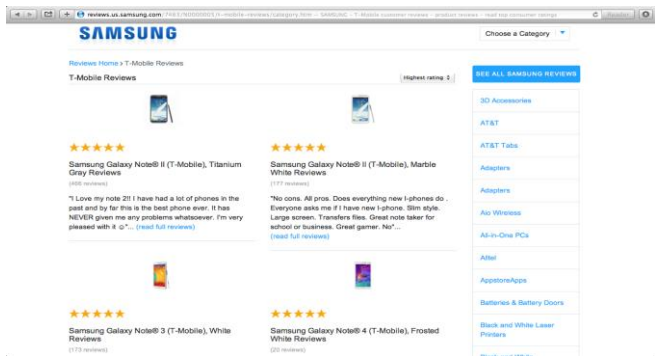
	Da	Ne
<p><b>Delitev predlogov za nove izdelke ali idej za izboljšavo obstoječih izdelkov</b> (primer: <i>Dell IdeaStorm</i>)</p> 	<input type="radio"/>	<input type="radio"/>
<p><b>Ustvarjanje novega izdelka (njegovih funkcij ali dizajna)</b> (primer: <i>Swarovski</i>)</p> 	<input type="radio"/>	<input type="radio"/>
<p><b>Sodelovanje pri podpori drugim kupcem pri reševanju težav z izdelkom (npr. odgovarjanje na vprašanja o proizvodu)</b> (primer: <i>Microsoft's MVP Program</i>)</p> 	<input type="radio"/>	<input type="radio"/>

table continues

continued

	Da	Ne
<p><b>Identifikacija pomankljivosti pri obstoječem izdelku (prototipu)</b> (primer: Audi Virtual Lab)</p> 	<input type="radio"/>	<input type="radio"/>
<p><b>Delitev informacij in mnenj o izdelku (posredni vpliv na kupce glede nakupa izdelka)</b> (primer: Samsung forum)</p> 	<input type="radio"/>	<input type="radio"/>

Za konec bi vas prosila le še za nekaj vaših splošnih podatkov o spolu, starosti in izobrazbi, ki mi bodo služili pri statistični analizi.

Katerega spola ste?

<input type="radio"/>	Moški
<input type="radio"/>	Ženska

**V katero starostno skupino spadate?**

<input type="radio"/>	Do 20 let
<input type="radio"/>	21– 0 let
<input type="radio"/>	31–40 let
<input type="radio"/>	41–50 let
<input type="radio"/>	Nad 50 let

**Kakšna je vaša najvišja dosežena formalna izobrazba?**

<input type="radio"/>	Srednješolska izobrazba ali manj
<input type="radio"/>	Diploma
<input type="radio"/>	Magisterij ali doktorski naziv

Prosim še za klik na gumb **KONEC**, saj se bodo le tako vaši odgovori uspešno shranili.

Hvala za sodelovanje!

## Appendix C: The results of the independent-samples t-test

Table 2. Construct willingness to share knowledge and ideas

			Group Statistics			t-test for equality of means			
		Participation	N	Mean	Std. deviation	t	Df	Sig. (2-tailed)	Mean Difference
Product conceptualiser	Achievement	No	146	3.46	1.05	-2.132	174	0.034	<b>** -0.445</b>
		Yes	30	3.90	1.01				
	Affiliation	No	146	3.06	1.05	-2.218	174	0.028	<b>** -0.472</b>
		Yes	30	3.53	1.14				
	Power	No	146	2.51	0.98	-1.169	174	0.244	-0.236
		Yes	30	2.75	1.14				
Product designer	Achievement	No	141	3.46	1.07	-1.977	174	0.050	<b>** -0.389</b>
		Yes	35	3.84	0.94				
	Affiliation	No	141	3.11	1.05	-0.885	174	0.378	-0.179
		Yes	35	3.29	1.18				
	Power	No	141	2.49	0.98	-1.810	174	0.072	-0.343
		Yes	35	2.83	1.08				
Product tester	Achievement	No	145	3.44	1.05	-2.392	174	0.018	<b>** -0.491</b>
		Yes	31	3.94	0.98				
	Affiliation	No	145	3.14	1.06	-0.018	174	0.986	-0.004
		Yes	31	3.15	1.17				
	Power	No	145	2.50	1.01	-1.541	174	0.125	-0.306
		Yes	31	2.81	1.01				

table continues

continued

			Group Statistics			t-test for equality of means			
		Participation	N	Mean	Std. deviation	t	Df	Sig. (2-tailed)	Mean Difference
Product support specialist	Achievement *	No	127	3.41	1.09	-2.865	108.196	0.005	<b>** -0.452</b>
		Yes	49	3.86	0.87				
	Affiliation	No	127	3.13	1.06	-0.319	174.000	0.750	-0.058
		Yes	49	3.18	1.12				
	Power	No	127	2.62	1.05	1.445	174.000	0.150	0.244
		Yes	49	2.38	0.88				
Product marketer	Achievement	No	111	3.45	1.05	-1.337	174.000	0.183	-0.219
		Yes	65	3.67	1.04				
	Affiliation	No	111	3.13	1.06	-0.184	174.000	0.854	-0.031
		Yes	65	3.16	1.10				
	Power	No	111	2.55	1.04	0.001	174.000	0.999	0.000
		Yes	65	2.55	0.97				

Note. \* Equal variance not assumed; \*\* p < 0.05; Significant differences and variables appear in bold.

Table 3. Construct customer's benefit

			Group Statistics			t-test for equality of means			
		Participation	N	Mean	Std. deviation	t	Df	Sig. (2-tailed)	Mean Difference
Product conceptualiser	Learning benefit	No	146	3.96	0.87	-0.988	174	0.325	-0.180
		Yes	30	4.13	1.04				
	Financial benefit	No	146	4.25	0.73	-1.229	174	0.221	-0.180
		Yes	30	4.43	0.71				
	<b>Social benefit</b>	No	146	3.13	1.06	-2.185	174	0.030	<b>** -0.470</b>
		Yes	30	3.60	1.12				
	Psychological benefit	No	146	4.17	0.73	-0.770	174	0.442	-0.110
		Yes	30	4.28	0.68				
Product designer	Learning benefit	No	141	3.97	0.85	-0.524	174	0.601	-0.089
		Yes	35	4.06	1.09				
	Financial benefit	No	141	4.28	0.72	-0.272	174	0.786	-0.038
		Yes	35	4.31	0.77				
	Social benefit	No	141	3.17	1.07	-0.866	174	0.388	-0.177
		Yes	35	3.35	1.15				
	Psychological benefit	No	141	4.18	0.69	-0.132	174	0.895	-0.018
		Yes	35	4.20	0.83				
Product tester	<b>Learning benefit</b>	No	145	3.92	0.91	-2.214	174	0.028	<b>** -0.389</b>
		Yes	31	4.31	0.76				
	Financial benefit	No	145	4.28	0.70	-0.052	174	0.958	-0.008
		Yes	31	4.29	0.88				

table continues

continued

			Group Statistics			t-test for equality of means			
		Participation	N	Mean	Std. deviation	t	Df	Sig. (2-tailed)	Mean Difference
Product tester	Social benefit *	No	145	3.15	1.04	-1.441	39.483	0.157	-0.345
		Yes	31	3.49	1.24				
	Psychological benefit	No	145	4.20	0.69	0.390	174.000	0.697	0.056
		Yes	31	4.14	0.84				
Product support specialist	Learning benefit	No	127	3.98	0.90	-0.223	174.000	0.824	-0.034
		Yes	49	4.01	0.91				
	Financial benefit	No	127	4.30	0.71	0.517	174.000	0.606	0.064
		Yes	49	4.24	0.78				
	Social benefit	No	127	3.22	1.09	0.098	174.000	0.922	0.018
		Yes	49	3.20	1.08				
	Psychological benefit	No	127	4.19	0.72	0.255	174.000	0.799	0.031
		Yes	49	4.16	0.72				
Product marketer	Learning benefit *	No	111	4.01	0.84	0.428	117.192	0.669	0.063
		Yes	65	3.95	0.99				
	Financial benefit	No	111	4.26	0.75	-0.540	174.000	0.590	-0.062
		Yes	65	4.32	0.71				
	Social benefit	No	111	3.26	1.07	0.767	174.000	0.444	0.130
		Yes	65	3.13	1.11				
	Psychological benefit	No	111	4.20	0.70	0.231	174.000	0.818	0.026
		Yes	65	4.17	0.75				

Note. \* Equal variance not assumed; \*\*  $p < 0.05$ ; Significant differences and variables appear in bold.



Table 4. Construct reciprocal communication

			Group Statistics			t-test for equality of means			
		Participation	N	Mean	Std. deviation	t	Df	Sig. (2-tailed)	Mean Difference
Product conceptualiser	Reciprocal Communication	No	146	3.91	0.97	-0.761	174	0.447	-0.149
		Yes	30	4.06	1.02				
<b>Product designer</b>	<b>Reciprocal Communication</b>	No	141	4.02	0.93	2.341	174	0.020	<b>**0.426</b>
		Yes	35	3.59	1.09				
Product tester	Reciprocal Communication	No	145	3.94	0.95	0.247	174	0.806	0.048
		Yes	31	3.89	1.11				
Product support specialist	Reciprocal Communication	No	127	3.96	0.95	0.514	174	0.608	0.085
		Yes	49	3.87	1.06				
Product marketer	Reciprocal Communication	No	111	3.89	1.01	-0.655	174	0.514	-0.100
		Yes	65	3.99	0.93				

Note. \*\*  $p < 0.05$ ; Significant differences and variables appear in bold.

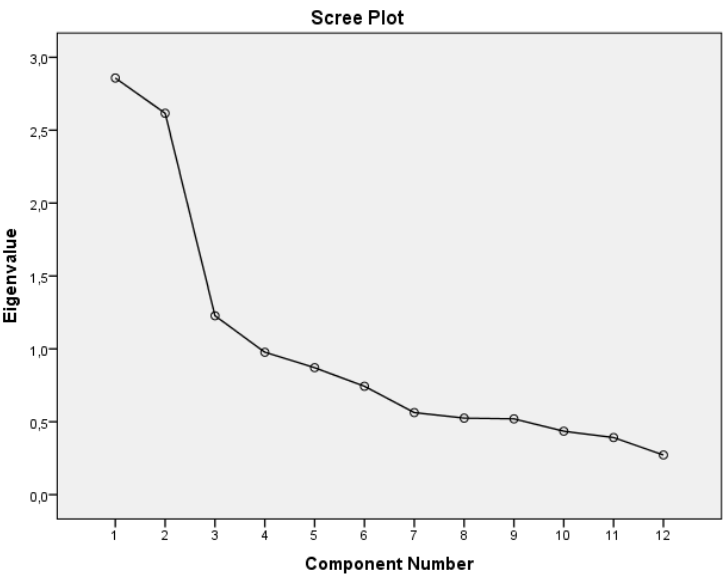
Table 5. A construct affective commitment to the company

			Group Statistics			t-test for equality of means			
		Participation	N	Mean	Std. deviation	t	Df	Sig. (2-tailed)	Mean Difference
Product conceptualiser	Affective commitment *	No	146	3.51	1.08	-0.516	37.082	0.609	-0.135
		Yes	30	3.64	1.34				
Product designer	Affective commitment	No	141	3.56	1.11	0.676	174	0.500	0.144
		Yes	35	3.41	1.21				
Product tester	Affective commitment	No	145	3.48	1.10	-0.200	174	0.232	-0.267
		Yes	31	3.75	1.23				
Product support specialist	Affective commitment	No	127	3.52	1.15	-0.229	174	0.819	-0.044
		Yes	49	3.56	1.08				
Product marketer	Affective commitment	No	111	3.53	1.13	-0.043	174	0.966	-0.008
		Yes	65	3.53	1.13				

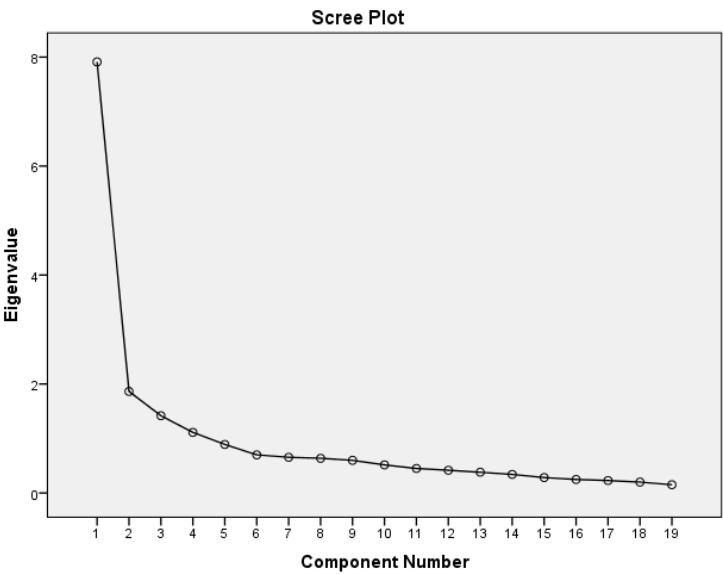
Note. \* Equal variance not assumed

**Appendix D: A Scree Plot of Principal Component Analysis**

*Figure 1. Willingness to share knowledge and ideas*



*Figure 2. Customer's benefit*



## Appendix E: A Summary of Measurement Scales

Table 6. Summary of Measurement Scales

Item abbreviation	Measurement item scale (English language)	Measurement item scale (Slovenian language)
ACHIEVEMENT MOTIVE 1	I believe that I am sufficiently competent to share my ideas in automotive field.	Verjamem, da sem dovolj kompetenten(na) za podajalne novih idej na področju avtomobilizma.
ACHIEVEMENT MOTIVE 2	I do not want to postpone a difficult task for a while.	Zahtevnih nalog ne maram prestavljati na kasneje.
ACHIEVEMENT MOTIVE 3	I feel confident enough to share my ideas with an automotive company.	Dovolj sem samozavesten(na), da sem pripravljena svoje ideje deliti z avtomobilskim podjetje.
ACHIEVEMENT MOTIVE 4	I am afraid I do not have enough knowledge about automotive.	Bojim se, da nimam dovolj znanja o avtomobilizmu.
AFFILIATION MOTIVE 1	I am afraid of my ideas being boring to other participants and automotive company.	Bojim se, da bi se moje ideje udeležencem družbenih omrežij zdele dolgočasne.
AFFILIATION MOTIVE 2	I feel good to communicate with other participants on social networks.	Rad(a) komuniciram z udeleženci na družbenih omrežjih.
AFFILIATION MOTIVE 3	I hope to get in touch with participants from social networks.	Želim si, da bi ljudi s katerimi komuniciram preko družbenih omrežji spoznal(a) tudi v živo.
AFFILIATION MOTIVE 4	I am afraid of my ideas being rejected by other participants and automotive company.	Bojim se, da bi bile moje ideje slabo sprejete med udeleženci družbenih omrežij.
POWER MOTIVE 1	I anticipate getting losing standing amongst participants of virtual platform.	Predvidevam, da bi v spletni diskusiji moje objave dobile nizko število glasov.
POWER MOTIVE 2	I want to influence other participants of virtual platform.	Želim si, da bi lahko vplival(a) na druge udeležence družbenih omrežij.

table continues

continued

<b>Item abbreviation</b>	<b>Measurement item scale (English language)</b>	<b>Measurement item scale (Slovenian language)</b>
POWER MOTIVE 3	I am afraid of being overpowered by other participants of virtual platform.	Bojim se, da bi me drugi udeleženci družbenega omrežja preglasovali.
POWER MOTIVE 4	I hope to acquire good standing among other participants of virtual platform.	Želim si biti cenjen(a) s strani drugih udeležencev družbenega omrežja.
FINANCIAL BENEFIT 1	Discount on car purchase	Popust pri nakupu avtomobila
FINANCIAL BENEFIT 2	Cash reward	Denarna nagrada
FINANCIAL BENEFIT 3	Profit sharing from the automotive company you engage with	Delitev dobička z avtomobilskim podjetjem
FINANCIAL BENEFIT 4	Intellectual property (e.g. industrial design rights)	Intelektualna lastnina (npr. patentiran dizajn)
LEARNING BENEFIT 1	Developing current or new skills	Utrditev obstoječih ali razvoj novih spretnosti
LEARNING BENEFIT 2	Gaining technology knowledge (web-based vehicle concept editor)	Razvoj računalniških spretnosti (npr. uporaba računalniškega orodja za razvoj dizajna koncepta avtomobila)
HEDONIC BENEFIT 1	Satisfaction of improving existing car characteristics	Možnost izboljšave obstoječega modela avtomobila
HEDONIC BENEFIT 2	Escaping from daily routine	Pobeg iz vsakodnevne rutine

table continues

continued

<b>Item abbreviation</b>	<b>Measurement item scale (English language)</b>	<b>Measurement item scale (Slovenian language)</b>
PERSONAL BENEFIT 1	Feeling of personal growth	Možnost osebnega razvoja
PERSONAL BENEFIT 2	Career advancement	Pozitiven vpliv na razvoj moje kariere
SOCIAL BENEFIT 1	Enhancing existing/ forming new relationship with automotive company	Utrditev obstoječega ali razvoj novega odnosa z avtomobilskim podjetjem
SOCIAL BENEFIT 2	Increase of social recognition	Dvig ugleda na družbenem omrežju
SOCIAL BENEFIT 3	Becoming member of a community with shared interests	Pripadnost skupini, katere udeleženci si delijo enake interese.
SOCIAL BENEFIT 4	Getting social approval	Občutek odobravanja pri udeležencih družbenega omrežja.
PSYCHOLOGICAL BENEFIT 1	Enjoyment and well-being	Zabava in dobro počutje.
PSYCHOLOGICAL BENEFIT 2	Sense of adventure	Občutek doživetja.
PSYCHOLOGICAL BENEFIT 3	Expressing myself	Možnost osebnega izražanja.
PSYCHOLOGICAL BENEFIT 4	Interest for given task	Zanimivost naloge.

table continues

continued

<b>Item abbreviation</b>	<b>Measurement item scale (English language)</b>	<b>Measurement item scale (Slovenian language)</b>
PSYCHOLOGICAL BENEFIT 5	Taking a new challenge	Nov izziv.
COMMUNICATION 1	Automotive company always keeps me well informed about competing vehicle design concept rating.	Avtomobilsko podjetje me redno obvešča o prejetih ocenah (uvrstitvi) vseh objavljenih konceptnih idej avtomobilov, ki sodelujejo v natečaju, glede na število glasov.
COMMUNICATION 2	Automotive company explains web-based vehicle concept editor functionalities in a meaningful way.	Avtomobilsko podjetje mi dobro razloži način uporabe računalniškega orodja za načrtovanje koncepta avtomobila.
COMMUNICATION 3	Automobile company always provides me with as much information about car models as I need.	Avtomobilsko podjetjem vedno poda zadostne in oprijemljive informacije o obstoječih modelih avtomobilov.
AFFECTIVE COMMITMENT 1	I would feel like part of the family at this company.	Bi se pri tem podjetju počutil(a) domače.
AFFECTIVE COMMITMENT 2	This company would have a great deal of personal meaning for me.	Bi mi to podjetje osebno veliko pomenilo.
AFFECTIVE COMMITMENT 3	I would feel emotionally attached to this company.	Ni bil(a) čustveno navezana na to podjetje.
AFFECTIVE COMMITMENT 4	I would feel a strong sense of belonging to this company	Bi čutil(a) močno pripadnost temu podjetju.
ATTITUDINAL LOYALTY 1	I would be committed to that automotive company way more than to automobile companies with whom I haven't participated in vehicle concept co-creation activity.	Temu avtomobilskemu podjetju sem pripaden(a) bolj kot avtomobilskemu podjetjem, s katerimi nisem sodeloval(a) pri soustvarjanju novega koncepta avtomobila.

table continues

continued

<b>Item abbreviation</b>	<b>Measurement item scale (English language)</b>	<b>Measurement item scale (Slovenian language)</b>
ATTITUDINAL LOYALTY 2	I would be willing to pay higher price for its automotive brand over other brands.	Pripravljen(a) sem plačati višjo ceno za nakup avtomobila tega podjetja.
ATTITUDINAL LOYALTY 3	I would prefer this automotive company to others.	To avtomobilsko podjetje imam raje od ostalih.
ATTITUDINAL LOYALTY 4	I would suggest my relatives and friends buying a car of this automotive company.	Svojim sorodnikom in znancem priporočam nakup avta tega podjetja.
ATTITUDINAL LOYALTY 5	The likelihood of me switching to another automotive company would be low.	Možnost, da zamenjam znamko proizvajalca avtomobila, je malo verjetna.
ATTITUDINAL LOYALTY 6	I would buy vehicles of this company either for personal or business needs.	Kupoval(a) bom vozila tega podjetja za privatno ali službeno uporabo.
BEHAVIOURAL LOYALTY 1	I would buy a car of this particular automotive company the next time I buy a vehicle.	Ko bom naslednjič kupoval(a) avtomobil, se bom odločil(a) za to podjetje.
BEHAVIOURAL LOYALTY 2	In the future I would keep on purchasing this brand.	V prihodnosti bom nadaljeval(a) s kupovanjem avtomobilov tega podjetja.

table continues



## Appendix F: An output of binomial logistic regression

Table 7. Binomial logistic regression for product conceptualiser co-creation activity

Independent variable (x)	Unstandardized Coefficients		Wald	Df	Sig.
	$\beta$	Std. Error			
(CONSTANT)	-4.605	1.820	6.403	1	0.011
ACHIEVEMENT MOTIVE	0.334	0.247	1.828	1	0.176
AFFILIATION MOTIVE	0.288	0.221	1.701	1	0.192
POWER MOTIVE	0.196	0.197	0.991	1	0.319
LEARNING BENEFIT	-0.026	0.299	0.008	1	0.930
FINANCIAL BENEFIR	0.314	0.339	0.859	1	0.354
SOCIAL BENEFIT	0.414	0.318	1.692	1	0.193
PSYCHOLOGICAL BENEFIT	-0.361	0.413	0.764	1	0.382
RECIPROCAL COMMUNICATION	0.007	0.274	0.001	1	0.978
AFFECTIVE COMMITMENT	-0.232	0.253	0.840	1	0.359

Table 8. Binomial logistic regression for product designer co-creation activity

Independent variable (x)	Unstandardized Coefficients		Wald	Df	Sig.
	$\beta$	Std. Error			
(CONSTANT)	-3.096	1.604	3.727	1	0.054
<b>ACHIEVEMENT MOTIVE</b>	<b>*0.577</b>	0.241	5.715	1	0.017
AFFILIATION MOTIVE	0.117	0.215	0.299	1	0.585
POWER MOTIVE	0.354	0.197	3.224	1	0.073
LEARNING BENEFIT	0.205	0.274	0.557	1	0.456
FINANCIAL BENEFIR	0.216	0.308	0.494	1	0.482
SOCIAL BENEFIT	0.196	0.290	0.456	1	0.500
PSYCHOLOGICAL BENEFIT	-0.163	0.361	0.203	1	0.652
<b>RECIPROCAL COMMUNICATION</b>	<b>*-0.736</b>	0.248	8.811	1	0.003
AFFECTIVE COMMITMENT	-0.183	0.236	0.603	1	0.438

Note. \*  $p < 0.05$

Table 9. Binomial logistic regression for product tester co-creation activity

Independent variable (x)	Unstandardized Coefficients		Wald	Df	Sig.
	$\beta$	Std. Error			
(CONSTANT)	-3.697	1.761	4.406	1	0.036
<b>ACHIEVEMENT MOTIVE</b>	<b>*0.725</b>	0.275	6.931	1	0.008
AFFILIATION MOTIVE	-0.187	0.225	0.688	1	0.407
POWER MOTIVE	0.284	0.209	1.837	1	0.175
<b>LEARNING BENEFIT</b>	<b>*0.840</b>	0.354	5.629	1	0.018
FINANCIAL BENEFIT	-0.052	0.334	0.024	1	0.876
SOCIAL BENEFIT	0.126	0.302	0.173	1	0.678
<b>PSYCHOLOGICAL BENEFIT</b>	<b>*-0.949</b>	0.432	4.832	1	0.028
RECIPROCAL COMMUNICATION	-0.349	0.262	1.766	1	0.184
AFFECTIVE COMMITMENT	0.265	0.270	0.960	1	0.327

Note. \*  $p < 0.05$

Table 10. Binomial logistic regression for product support specialist co-creation activity

Independent variable (x)	Unstandardized Coefficients		Wald	Df	Sig.
	$\beta$	Std. Error			
(CONSTANT)	-0.749	1.469	0.260	1	0.610
<b>ACHIEVEMENT MOTIVE</b>	<b>*0.571</b>	0.210	7.400	1	0.007
AFFILIATION MOTIVE	0.019	0.184	0.011	1	0.918
POWER MOTIVE	-0.223	0.181	1.518	1	0.218
LEARNING BENEFIT	0.131	0.236	0.308	1	0.579
FINANCIAL BENEFIT	-0.041	0.254	0.026	1	0.872
SOCIAL BENEFIT	-0.162	0.243	0.443	1	0.506
PSYCHOLOGICAL BENEFIT	-0.367	0.332	1.226	1	0.268
RECIPROCAL COMMUNICATION	-0.222	0.213	1.080	1	0.299
AFFECTIVE COMMITMENT	0.222	0.210	1.119	1	0.290

Note. \*  $p < 0.05$

Table 11. Binomial logistic regression for product marketer co-creation activity

Independent variable (x)	Unstandardized Coefficients		Wald	Df	Sig.
	$\beta$	Std. Error			
(CONSTANT)	-1.866	1.416	1.737	1	0.188
ACHIEVEMENT MOTIVE	0.304	0.176	2.990	1	0.084
AFFILIATION MOTIVE	0.039	0.167	0.055	1	0.815
POWER MOTIVE	0.054	0.161	0.112	1	0.738
LEARNING BENEFIT	-0.089	0.221	0.160	1	0.689
FINANCIAL BENEFIR	0.219	0.242	0.819	1	0.366
SOCIAL BENEFIT	-0.317	0.222	2.048	1	0.152
PSYCHOLOGICAL BENEFIT	-0.123	0.299	0.169	1	0.681
RECIPROCAL COMMUNICATION	0.129	0.197	0.429	1	0.513
AFFECTIVE COMMITMENT	0.118	0.190	0.389	1	0.533

## **Appendix G: Summary in Slovene language (povzetek)**

V zadnjih letih se življenjski cikel izdelka s tehnološkim napredkom, močno konkurenco ter vse bolj kompleksnimi zahtevami in pričakovanji kupcev močno skrajšuje (Filieri, 2013; Tsafarakis et al., 2011; Zhang & Chen, 2008). Vsi naštetih dejavniki vplivajo na kompleksnost današnje ponudbe na trgu. Kljub temu se podjetja ne glede na industrijo velikokrat znajdejo v položaju, ko nimajo dovolj informacij o tem, kakšni izdelki bi zadovoljili potrebe kupcev ter posledično okrepili njihovo zvestobo blagovni znamki, podjetju pa zagotovili stalen vir dobička (Epp & Price, 2011; Ulaga & Reinartz, 2011). Da podjetja v današnjih razmerah preživijo, morajo skrbeti za neprekinjen proces inovacije, kar predstavlja ključno konkurenčno prednost (Brown & Eisenhardt, 1995; Cooper, 2000; Motwani et al., 1999). Po besedah avtorja Chesbrough (2003, p. 17) je v današnjih tržnih razmerah, kjer je edina stalnica sprememba, pomen inovacije pomemben dejavnik, in sicer ne glede na velikost podjetja ali industrijo.

Razvoj novih ali obstoječih izdelkov je eden izmed ključnih dejavnikov uspeha podjetja (Tsafarakis et al., 2011, p. 1253). Najpomembnejše vprašanje, ki si ga zastavljajo, je, kako kupcem stalno zagotavljati nove in inovativne rešitve, ki rešujejo njihove vsakodnevne potrebe. To pa še zdaleč ni preprosta naloga, saj si podjetja zaradi visokih stroškov in izgube zaupanja kupcev napak ne morejo privoščiti (Tsafarakis et al., 2011, p. 1253).

Ker imajo razvojni oddelki v podjetjih nemalokrat težave slediti hitrim spremembam na trgu in vse bolj kompleksnim zahtevam kupcev, vse pogostejše posegajo po virih idej izven meja njihove organizacije (Chesbrough, 2003; Ramaswamy & Gouillart, 2010). Posledično je pojav vključevanja končnih kupcev v proces soustvarjanja vrednosti vse bolj priljubljena trženjska strategija, ki podjetjem omogoča pridobitev širšega vpogleda v potrebe trga in okrepitev odnosa s kupci (Auh et al., 2011; Rossi, 2011; Zhang & Chen, 2008). Novodobna strategija, ki se močno razlikuje od tradicionalnega pogleda ustvarjanja nove vrednosti, v poslovnem svetu močno pridobiva na pomenu, saj naj bi podjetjem omogočala dostop do inovacije, zvestobe kupcev in dobičku. Tako imenovani koncept soustvarjanja vrednosti ima končnega uporabnika za ključni vir v procesu inovacije in generiranja končnega izdelka ali storitve (Grönroos, 2008; Ophof, 2013; Vargo & Lusch, 2004). Mednarodna podjetja, kot so Nike, Dell, Unilever, Procter & Gamble, Apple in GlaxoSmithKline, so samo peščica tistih, ki so odkrili in ponotranjili nov trženjski prijem in odkrili moč kupcev na poti do konkurenčnega položaja na trgu.

Po letu 2007 je začela prodaja avtomobilov drastično upadati. Število registriranih vozil je do leta 2013 padlo na 12 milijonov, kar predstavlja upad za 23% glede na leto 2007. Slednje dokazuje močno povezanost med številom novo registriranih vozil in ekonomskim stanjem v Evropi (ICCT, 2013). Močna konkurenca na trgu, padajoči prihodki in vse bolj kompleksna pričakovanja kupcev so prisilili proizvajalce avtomobilov k diferenciaciji in iskanju zvestobe kupcev. Avtomobilska podjetja, kot so Ford, Volkswagen, BMW, Fiat in Audi, so trden dokaz, da je soustvarjanje s kupci v današnjem dinamičnem poslovnem okolju ena izmed uspešnejših

strategij, ki vodi do konkurenčnega položaja na trgu. Podjetja, ki v poslovni proces uspejo integrirati eno od oblik soustvarjanja vrednosti, lažje generirajo uspešne produkte in ustvarijo pomembne uporabniške izkušnje, kar posledično vodi k izboljšanju konkurenčnega položaja na trgu. Glavne prednosti te uspešne trženjske strategije so poleg rasti prihodkov in nižjih stroškov poslovanja tudi trdnjši odnos s kupci, ki se zaradi zadovoljstva s proizvodi odraža v njihovi zvestobi blagovni znamki (PwC, 2013).

Spremembe v potrebah kupcev ter poslovnem in družbenem okolju so prisilile proizvajalce avtomobilov k večji dinamiki in hitrejšemu razvoju novih modelov avtomobilov. Avtomobilska podjetja, ki danes zaostanejo v procesu razvoja novega ali obstoječega modela vozila, tvegajo izgubo konkurenčnega položaja na trgu. Modeli, kot so Smart ForTwo, Fiat Stilo, Volkswagen Phaeton ali Peugeot 1007, so le nekateri primeri slabo načrtovanih uvedb avtomobila na trg, ki so imeli izredno slab vpliv na dobičkonosnost podjetij (Bernstein Research, 2013). Soustvarjanje s kupci omogoča avtomobilskemu podjetju, da se lažje izogne negativnim posledicam, povezanim z uvedbo novega modela avtomobila, saj temelji na povezovanju s ciljnim kupci. Na tak način proizvajalci veliko hitreje in ciljno ustvarijo uspešne modele avtomobilov, ki dosegajo predvidene prodajne plane in pripomorejo k dobičkonosnosti podjetja.

Moje magistrsko delo se osredotoča na razvoj trženjske strategije soustvarjanja novega modela avtomobila s ciljnim kupci. Čeprav je tematika soustvarjanja vrednosti s končnimi porabniki že precej raziskano področje tako v trženjski literaturi kot v poslovnem procesu, še vedno ostaja nepojasnjeno, kaj so ključni dejavniki v avtomobilski industriji, ki vplivajo na pripravljenost kupcev k sodelovanju v aktivnostih soustvarjanja. Prav tako v literaturi ni bilo zaslediti, kako soustvarjanje vrednosti kasneje vpliva na zvestobo kupcev k blagovni znamki avtomobila, v kolikor se trženjska strategija uspešno vključi v poslovni proces podjetja.

Glavni cilj magistrskega dela je bil najti odgovore na naslednja vprašanja: (1) Kateri od izbranih dejavnikov vplivajo na pripravljenost slovenskih kupcev k sodelovanju v aktivnosti soustvarjanja novega modela avtomobila? (2) Ali bi sodelovanje v aktivnosti soustvarjanja novega modela avtomobila vplivalo na čustveno in vedenjsko zvestobo slovenskih kupcev k blagovni znamki avtomobilskega podjetja, s katerim bi sodelovali? (3) Ali obstaja povezava med obema vrstama zvestobe blagovni znamki, ki čustveno zvestobo privede do vedenjske zvestobe?

Za dosego odgovorov na zastavljena vprašanja sem na podlagi dveh že obstoječih člankov avtorjev Hakanen in Jaakkola (2012, str. 605) ter Auh et al. (2007, str. 361) razvila teoretični raziskovalni model, s pomočjo katerega sem postavila svoje raziskovalne hipoteze. Raziskovalni model v celoto povezuje naslednjih sedem konstruktov: štirje dejavniki, ki naj bi vplivali na sodelovanje v aktivnosti soustvarjanja, pripravljenost kupcev na sodelovanje v aktivnosti soustvarjanja ter dve vrsti zvestobe kupcev.

Empirični del magistrskega dela je sestavljen iz treh korakov. V prvem delu sem uporabila deskriptivno metodo raziskovanja, s čimer sem dobila vpogled v ključne koncepte magistrskega dela na področju trženjske strategije soustvarjanja vrednosti in zvestobe kupcev. Prav tako sem v prvem delu raziskave uporabila raziskovalno metodo deskripcije in komparacije, saj sem opisovala in primerjala spoznanja različnih avtorjev, objavljenih v strokovni literaturi, vključno z znanstvenimi članki, revijami, knjigami in spletnimi stranmi. Ker je koncept soustvarjanja že uveljavljen trženjski pristop, sem teoretična spoznanja nadgradila s primeri dobrih praks v različnih industrijah, pri čemer sem se osredotočila predvsem na sektor avtomobilizma. Skozi celotno magistrsko delo sem uporabljala metodo kompilacije, saj sem v celoto povzemala različne strokovne vire.

V drugem delu magistrskega dela sem uporabila metodo raziskovalnega modela, s pomočjo katerega sem oblikovala raziskovalne hipoteze ter izbrane konstrukte (soustvarjanje vrednosti in zvestobo kupcev) povezala v celoto. Nato sem skozi kvantitativni način raziskovanja, pri čemer sem izvedla spletno anketo med slovenskimi kupci avtomobilov, poskušala potrditi ali ovreči predhodno postavljene hipoteze. Rezultate ankete sem obdelala v programu SPSS 20.0.

V zadnjem delu empiričnega dela sem uporabila sintetično metodo raziskovanja, saj sem povezala in interpretirala ključna spoznanja, pridobljena skozi magistrsko delo.

V procesu raziskovanja sem prišla do nekaterih pomembnih dognanj. Avtomobilska podjetja, ki si prizadevajo, da bi v svoj poslovni proces uspešno uvedla nov trženjski pristop soustvarjanja novega ali obstoječega modela avtomobila, morajo sprva raziskati vse dejavnike, ki motivirajo potencialne kupce k sodelovanju in delitvi svojih znanj in idej. Od vseh štirih preučevanih dejavnikov se morajo podjetja najbolj osredotočiti, da bodo skozi aktivnosti soustvarjanja v kupcih vzbudila občutek tekmovalnosti, usposobljenosti in občutek dosega zastavljenega cilja. Prav tako morajo podjetja kupcem zagotoviti občutek, da bodo pridobili nova znanja o avtomobilski industriji, procesu oblikovanja avtomobila ter da bodo usvojili večšine uporabe računalniškega orodja za oblikovanje dizajna avtomobila.

Večdimenzionalni koncept zvestobe kupcev blagovni znamki igra pomembno vlogo pri dolgoročni finančni stabilnosti in preživetju slehernega podjetja. Pomen zvestobe kupcev se sorazmerno povečuje s stopnjo konkurence v določeni panogi. Da bi si avtomobilska podjetja zagotovila stalen tok prihodkov, morajo vedeti, kako doseči, da kupci razvijejo pozitiven odnos do blagovne znamke, katero bodo kupovali tudi v prihodnosti. V trženjski literaturi je zaslediti precej raziskav na temo močne odvisnosti med udeležbo kupcev v aktivnostih soustvarjanja in zvestobo blagovni znamki. Ker omenjeni pojav v avtomobilski industriji ostaja precej neraziskan, sem ga skozi raziskavo poskušala podrobneje raziskati. Glede na pridobljene rezultate nisem uspela potrditi hipoteze, ki trdi, da v avtomobilski industriji obstaja povezava med udeležbo kupcev v aktivnosti soustvarjanja novega modela avtomobila



in zvestobo blagovni znamki. V nadaljevanju prav tako nisem uspela potrditi hipoteze, ki pravi, da v avtomobilski industriji med obema vrstama zvestobe obstaja povezava, ki čustveno zvestobo privede do vedenjske zvestobe.

Proces soustvarjanja vrednosti je med slovenskimi kupci še vedno precej neznana trženjska strategija, saj obstaja pomemben delež tistih kupcev, ki še niso sodelovali v nobeni dejavnosti soustvarjanja vrednosti v virtualnem okolju, kot so na primer oblikovanje novih konceptov proizvodov (83%), oblikovanje novih proizvodov (80%), testiranje proizvodov (83%), podpora drugim kupcem (72%) ali trženje izdelka (63%). Moje magistrsko delo tako širi vpogled v ključne dejavnike, ki bi lahko okrepili sodelovanje slovenskih kupcev v aktivnostih soustvarjanja vrednosti v avtomobilski industriji, kar predstavlja dokaj neraziskano področje trženjskega raziskovanja. Med vsemi dejavniki, ki sem jih raziskovala, je bilo potrjeno, da sta občutek dosežka in pridobivanja novega znanja najmočnejša faktorja, ki motivirata slovenske kupce k udeležbi v aktivnostih soustvarjanja novega modela avtomobila. Nasprotno pa ni bilo dokazano, da na udeležbo v aktivnosti soustvarjanja vpliva odprta komunikacija med kupcem in med podjetjem, čustvena navezanost na podjetje, motiv moči in pripadnosti skupini ali kakršnekoli finančne, hedonistične, osebne, socialne ali psihološke koristi. Obstaja verjetnost, da na sodelovanje slovenskih kupcev v procesu soustvarjanja novega modela avtomobila vplivajo tudi drugi dejavniki, ki pa niso bili predmet raziskave tega magistrskega dela. Raziskava ni uspela dokazati pomembne odvisnosti med udeležbo slovenskih kupcev v aktivnostih soustvarjanja in zvestobo blagovni znamki.