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A framework to assess the customer satisfaction in multi-sided platform

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Master's in Innovation and Technological Entrepreneurship

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Abstract

The customer satisfaction is an important element of customer journey. Within today's reality for any company this means if client will stay for another experience or leave forever. Customer satisfaction has direct connection with the future loyalty for the service and company.

The companies are highly interested in correct evaluation of the customer satisfaction level, as well as improving it. The first step for this change is to understand how to improve and how to shift from the existing situation to the new one regarding the improvement of the experience and product/service.

The literature shows that this implementation is not easy, there are many critical issues in each step of the way and many times the projects even fail completely to be implemented. This research aims to take one step further into the understanding, what are the critical factors and how is it possible to overcome it, by planning for its success. With the objective of minimizing the issues that large-scale companies face when evaluating the customer satisfaction level, the researcher looked for ways to create easy and understandable way to solve the problem.

This research aims to contribute with a framework provided supported by solid information from the literature, applied to a case study within a company, validated with managing director of the company and finally, evaluated and redefined to include the learnings from the process.

Keywords: Customer satisfaction, customer satisfaction improvement, customer engagement strategy, multi-sided platforms

Resumo

A satisfação do cliente é um elemento importante na sua caminhada. Diariamente, para qualquer empresa este elemento significa que o cliente poderá permanecer para uma nova experiência ou sair.

As empresas estão altamente interessadas em avaliar corretamente o nível de satisfação do cliente e em melhorá-lo. O primeiro passo para esta mudança é compreender como melhorar e mudar a situação actual para uma nova, tendo em conta o melhoramento da experiência e o produto/serviço.

A literatura mostra que esta implementação não é fácil. Em cada passo, existem muitas situações críticas, pelo que, muitas vezes os projetos falham completamente ao serem implementados.

Esta investigação tem como objectivo dar um passo adiante sobre este entendimento, quais são os factores críticos e como é possível ultrapassá-los, planeando o seu sucesso. Com o objetivo de minimizar os problemas que as empresas de grande dimensão enfrentam aquando da avaliação da satisfação dos clientes, o investigador procurou de maneira fácil e compreensível soluções para esta situação.

Esta investigação tem como objetivo contribuir com um modelo a ser aplicado em estudo de caso numa empresa. Este modelo foi criado e fundamentado por informação literária, aprovado pelo director da empresa e, finalmente, avaliado e redefinido para incorporar as aprendizagens do processo.

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Chapter 1

2 Introduction

4 Customer satisfaction has traditionally been known as a fundamental determinant of long-
term customer behavior (Oliver, 1980). The more satisfied the customers are, the greater is their
engagement (Anderson, Sullivan, 1993) and loyalty. It goes without saying that nowadays
6 companies and organizations tend to invest more and more effort into customer satisfaction.

8 The contemporary environment is constantly changing creating new ways to provide the
customer not only with the quality of product and service, but an emotional satisfaction as well.
Therefore, businesses have to develop different strategies in order to survive in long term. The high
10 level of customer satisfaction is one of the best strategies to keep a long term growth of business.
Since satisfied customer is the core concern of any organization therefore they pay close attention
12 toward the factors that influence a customer's decision.

14 The multi-sided platforms are a generally complexed environment when we speak about
customer's engagement and satisfaction. As there are two different customer groups presented in
the same environment, the techniques for their engagement could follow diverse goals.

16 The main purpose of this research is to identify the key factors that influence customer
satisfaction in multi-sided platforms environment. Factors affecting customer satisfaction are the
18 key concern for any organization, because through customer satisfaction any business can establish
long term profitable relationship with their customers. The main reason is once a firm loses its
20 customers loyalty it has to incur a cost of acquiring them again in addition to the cost of acquiring
the new ones.

22 The purpose of this research is to provide a tool for assessment analyses customer satisfaction
in the scope of new business strategies.

1.1 Motivation

2 The motivation for research of the subject comes from the researcher's academic background
in International Trade and the experience gained in Easy4Pro Company on the observation of the
4 work of the multi-sided logistics platform, where functional responsibilities include platform
performance evaluation, support team performance evaluation and support team KPIs elaboration
6 and evaluation.

The tendency for marketplaces business development as multi-sided platform and the
8 relevancy of the topic are considered as great motivation for the study.

10 The gap found in the literature and the possibility of further development, and the possibility
to test new tools in a practical environment, reassured the researcher's interest to contribute to the
thematic.

12 1.2 Objective of the research

The objective of this research is to optimize the level of customer satisfaction in a multi-sided
14 platforms environment. To achieve this, it is the researcher's objective to:

16 - Design a framework for the assessment of the customer satisfaction level, in a multi side
platform, in order to provide guides for improvement

1.3 Research Question

18 The research questions formulated after studying the presented literature crossed with
personal motivation and existing gaps:

20 - *Which are the critical factors that impact on the customer satisfaction level?*
- *How to analyze the factors of customer satisfaction to improve customer satisfaction level*
22 *in the context of multi-sided platforms?*

24 The question is aiming to discover the existing gap in the area within an environment of a
multi-sided platform.

1.4 Research Methodology

26 The methodology was conducted for an applied research approach, as the researcher looked to
answer the designated problematic by "employing well known and accepted theories and principles"
28 (Rajasekar et al., 2006). The research followed three streams:

- Theoretical: literary review to research scientific contributions to the thematic

The literature review followed an incremental approach, centered on the concepts found to be most valuable for this research specific goals. Scopus was used as a platform for this research, filtering the results from the period between 2019-1996 and prioritizing the most recent. The first literature review made can be found in the Annex A. The chosen concepts were then redefined and translated into the following search keywords “customer satisfaction”, “multi-sided platforms”, “customer satisfaction AND trust”, “customer journey”, “suppliers engagement” and their various combinations. From the first search, were obtained more than 30 articles and chosen the most significantly relevant ones for the subject. All of them were carefully analysed thought the selection conducted by reading the title and abstract of each article. Chapter 2 discusses the models in the literature that tackle these issues.

- Theoretical-practical: development a framework to assess the customer satisfaction level in a multi side platform

Based on the collected facts, a framework has been developed. This framework reflects the researcher's understanding of the knowledge available in the literature and a theoretical approach for the improvement of the customer satisfaction.

- Model Assessment and Validation: application of the framework to a case study

To achieve a comprehensive answer that could not only stand in theory, but also in practice, the framework designed was applied to an exploratory case study. The model was built with a vision to be applied to the specific structure of the multi-sided platforms. The existing model was applied for the customer satisfaction evaluation in a company.

The research follows the proposed actions to be taken to improve customer satisfaction level:

- The research follows literature's findings will be used for the framework development for the improvement of the customer satisfaction level for multi-sided platform strategies.

- The incorporated result is applied the tool within a company (Easy4Pro, business unit of the Redsphere Incubator);

- Describe the findings of the final model application.

1.5 Structure of the document

This document is structured in a way to allow the reader to follow the steps taken during the development of this research.

Chapter 1 is dedicated to the introduction to the topic and explanation of researches motivation for the study. In **chapter 2** it is presented a review of the relevant literature on customer satisfaction and engagement (chapter 2.1 and 2.2), multi sided platforms performance (chapter 2.3) and governance of multi sided platforms (chapter 2.4).

From this review comes the proposal of a model to cover the gap discovered in improvement of the level of the customer satisfaction in the organization depending to the governance mechanism.

Chapter 3 describes the model elaborated after literature discoveries.

Chapter 4 is dedicated to the description of the business model of Easy4Pro Company and
2 evaluation of existing level customer satisfaction.

To assess the framework applicability as a practical model, as much as a theoretical one, a
4 case study is presented and discussed (in **chapter 5**).

At the end, the conclusions and main takeaways from this process are argued (in **chapter 6**).

Chapter 2

2 Literature Review

Nowadays customer engagement environment is the key to a successful and long-lasting relationship with a company or brand. In this sense, exchanging opinions, evaluations, feedback, brand information and performance are favorable for co-working. With this perspective it is essential to measure customer and supplier performance to ensure the effective work in a chain and to avoid massive problems it may cause, as well as being sure customer requirements and expectations would be met.

This chapter is dedicated to highlight coming from the literature review. In this chapter will be explained such terms as customer engagement and its importance in the process of value creation for the customer, customer satisfaction and it's concern for the organizations who aim for long-term growth.

As well here will be described and explained the multi-sided platforms relevance together with the main dimensions and mechanisms which are applied. The following chapter includes the overview of the case study of the existing and well-knows online multi-sided platforms with different business models behind.

2.1 Customer Engagement into value creation

Customer engagement can be described as a communication connection in business between a customer and an organization made through all available channels with a final purpose of increasing customer loyalty to the organization (Di Gangi & Wasko, 2009; Brodie, Ilic, Juric & Hollebeck, 2013).

In a dynamic business environment, customer engagement enables sales promotion, product quality improvement, increase in customer satisfaction, decrease in costs and risk, and rise of competitive advantage (Di Gangi & Wasko, 2009; Brodie, Ilic, Juric & Hollebeck, 2013). According to Vargo and Lusch (2004), Prahalad and Ramaswamy (2004), the value created jointly by customers and companies is a basis for future competition. Selden and MacMillan (2006), Auh,

2 Bell, McLeod and Shih (2007), Rajah, Marshall and Nam (2008) revealed that both participants in
the process benefit from customer engagement into value creation, i.e. the company gains
3 competitive advantage and the customer has greater satisfaction which leads towards being loyal to
4 the company.

6 There are also different interpretations of the impact of customer engagement on customer
retention and their loyalty. Some authors (e.g., Auh et al., 2007) emphasize the direct influence that
customer engagement into value creation has on customers' attitudinal loyalty (and denies its impact
8 on behavioral loyalty), whereas other authors stress the indirect influence that customer engagement
into value creation has and distinguish intermediate factors such as satisfaction, trust, and strength
10 of the relationship (e.g., Rajah et al., 2008).

12 Prahalad and Ramaswamy (2004) states customers being able to access the information about
products and services and expected company transparency results in customer engagement and
usage of their individual experience when creating value and hence in the transformation of the
14 conventional market. Engaged customers become partners who cooperate with the company in the
process of value creation in order to satisfy their and other customers' needs, which is how
16 customers become value co-creators (Sashi, 2012).

18 Vargo et al. (2008), confirms that customer participation in the process of value creation is
vital to the development of an innovative product or service that would satisfy customer needs.

20 When emphasizing the main role of customer engagement, Vivek, Beatty and Morgan (2010)
base their approach on the extended perspective of relationship marketing that reveals the
development of long-term valuable relationships with customers and value co-creation.

22 Grissemann and Stokburger-Sauer (2012) analyzed the impact of the degree of customer
engagement into value creation on customer satisfaction with a company, their loyalty, and
24 expenses. The figure ... is representing a new construct model presented is 'customer satisfaction
with engagement into value creation'. The research findings of the study of the influence on
26 customer satisfaction with engagement into value creation have on relations between the degree of
customer engagement into value creation and customer satisfaction, loyalty, and expenses are stands
28 that customer satisfaction with engagement into value creation has an impact on relations between
the degree of customer engagement into value creation and customer satisfaction with a company
30 and their loyalty.

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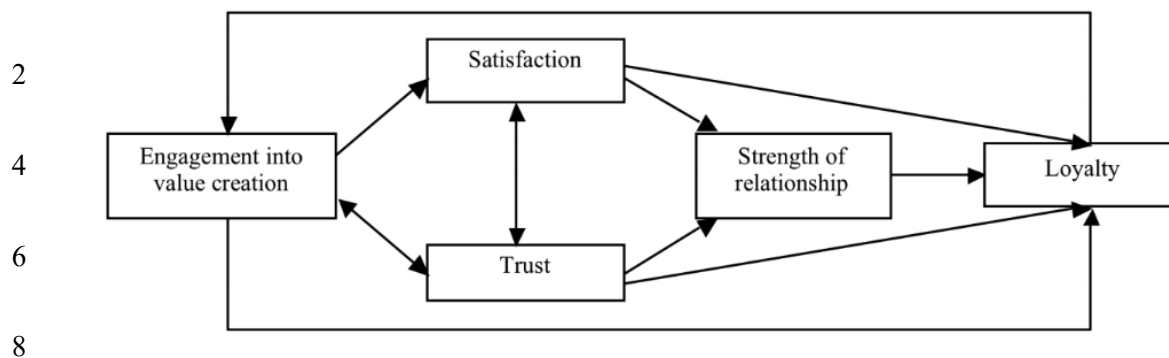


Figure 1 - Conceptual model of customer engagement into value creation and customer loyalty

Source: Grisseemann and Stokburger-Sauer (2012)

The authors confirmed the assumptions that the degree of customer engagement into value creation has an influence on their satisfaction with the company, loyalty, and expenses, and that customer satisfaction with the company affects their loyalty (Grisseemann & Stokburger-Sauer, 2012). According to the authors the customer engagement is linked directly to the customer's loyalty and vice versa, which means the higher engagement into value creation is, the higher the loyalty. At the same time, due to the authors' interpretation, the higher loyalty the more customer is willing to engage into value creation.

The relation between satisfaction and trust has been widely analyzed in the literature on relationship marketing. Selnes (1998) determined that satisfaction is the antecedent of trust in the provision of services. Egan (2011) studies of relationship marketing allow us to claim the influence of trust on customer satisfaction; therefore, the relation between the constructs may be analyzed as being reciprocal.

Generally all researcher are aligned that trust and satisfaction are crucial for a long-term relationships. In contrary, their opinion not always coincide regarding the impact of customer loyalty. However, it is a fact that customer satisfaction and trust affect the strength of relationship and loyalty. According to the Rajah (2008), it is possible to state that the strength of relationship determines the level of customer loyalty and acts as a mediator between the constructs of customer satisfaction and trust and customer loyalty.

Intermediate variables of the model are identified with reference to the model proposed by Rajah et al. (2008), including principles of relationship marketing theory, which considers customer satisfaction and trust as the main antecedents of long-term relationships.

A direct link between two main constructs of the conceptual model, i.e. customer engagement into value creation and customer loyalty, was studied by Auh et al. (2007). Grisseemann and Stokburger-Sauer (2012) also researched the dependence of customer loyalty on a higher degree of customer engagement into value creation. Creation of best value for the customer while involving customers into the process is considered to be the basis for the development of long-term relationships with customers resulting in customer retention and loyalty (Egan, 2011).

2.2 Customer satisfaction and its value

2 Customer Satisfaction has been a central concept in marketing literature and is an important
goal of all business activities. Today, companies face their toughest competition, because they
4 move from a product and sales philosophy to a marketing philosophy, which gives a company a
better chance of outperforming competition (Kotler, 2000). Overall customer satisfaction
6 translates to more profits for companies and market share increase.

Kotler (2000) defined satisfaction as: “a person’s feelings of pleasure or disappointment
8 resulting from comparing a product’s perceived performance (or outcome) in relation to his or
her expectations”. According to Hansemark and Albinsson (2004), “satisfaction is an overall
10 customer attitude towards a service provider, or an emotional reaction to the difference between
what customers anticipate and what they receive, regarding the fulfillment of some need, goal or
12 desire”.

Hoyer and MacInnis (2001) said that satisfaction can be associated with feelings of
14 acceptance, happiness, relief, excitement, and delight. There are many factors that affect customer
satisfaction. According to Hokanson (1995), it can be concluded that these factors are of two
16 types: human as friendly employees, courteous employees, knowledgeable employees, helpful
employees, and technical as accuracy of billing, billing timeliness, competitive pricing, service
18 quality, good value, billing clarity and quick service.

In order to achieve customer satisfaction, organizations must be able to satisfy their
20 customers’ needs and wants (La Barbera and Mazursky, 1983). Customers’ needs state the felt
deprivation of a customer (Kotler, 2000). Whereas customers’ wants, according to Kotler (2000)
22 refer to “the form taken by human needs as they are shaped by culture and individual personality”.

Customer satisfaction is defined as an "evaluation of the perceived discrepancy between prior
24 expectations and the actual performance of the product" (Tse and Wilton, 1988, Oliver 1999). The
satisfaction of customers with products and services of a company is considered as most important
26 factor leading toward competitiveness and success (Hennig-Thurau and Klee, 1997). Customer
satisfaction is actually how customer evaluates the ongoing performance (Gustafsson, Johnson and
28 Roos, 2005). According to Kim, Park and Jeong (2004), customer satisfaction is customer’s reaction
to the state of satisfaction, and customer’s judgment of satisfaction level.

30 Researchers have tried to define customer satisfaction and in general they have defined it as
transaction process. Oliver (1981) defined satisfaction “as a summary of psychological state
32 resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's
prior feelings about the consumption experience" (pp. 24). Kotler (2000) defined satisfaction as:
34 “a person’s feelings of pleasure or disappointment resulting from comparing a product perceived
performance (or outcome) in relation to his or her expectations”. According to Hansemark and
36 Albinsson (2004) “satisfaction is an overall customer attitude towards a service provider, or an
emotional reaction to the difference between what customers anticipate and what they receive,
38 regarding the fulfillment of some need, goal or desire”.

Customer satisfaction has a positive effect on an organization's profitability. The more customers are satisfied with products or services offered, the more are chances for any successful business as customer satisfaction leads to repeat purchase, brand loyalty, and positive word of mouth marketing. Customer satisfaction leads to repeat purchases, loyalty and to customer retention (Zairi, 2000).

Satisfied customers are more likely to repeat buying products or services. They will also tend to say good things and to recommend the product or service to others. On the other hand dissatisfied customers respond differently. Dissatisfied customers may try to reduce the dissonance by abandoning or returning the product, or they may try to reduce the dissonance by seeking information that might confirm its high value (Kotler, 2000).

Any existing business is always trying to fulfill the needs and demands of their customers. Since the preservation and survival of the organization, customer satisfaction, organizations that are successful in this way, in addition to maintaining our customers, reduce costs, attract new customers, repeat business away from competitors, and competitive advantage, customer-focused organization, they acquire (Karimi, Hasan Abad, 2008). Today, customer satisfaction is not enough for the successful business growth, it is necessary to understand the future needs of customers.

The study of Ahn, Han and Lee (2006) shows that when the customers, do not get their complaints considered properly, they start looking for other brands. It happens because either the customer service centres do not handle the complaints or the customers are not able to address them properly. Kim, Park and Jeong (2004) argued that service provider should provide customer-oriented services in order to heighten up customer satisfaction. It was also found that the customers get satisfied with a brand more if they get all the needed services accumulated in that very brand (Ahn, Han and Lee, 2006).



Figure 2 - The Periodic table of Customer Experience

The Figure 2 represent The Periodic Table of Customer Experience”, created by Vassit, a UK-based Digital Transformation specialist, where were defined all the stages to achieve a successful customer experience, such as touchpoints (highlighted in orange), customer tools and principles (highlighted in red), information management (dark blue), journey stages and journey mapping (dark pink and pink), customer satisfaction factors (green) and business goals (blue). The table was build according to the linkage between the elements, therefore it is essential to be ensured that customer experience tools are align with information management, and business goals are supporting customer’s satisfaction values.

The defined success factors for customer satisfaction have an objective to facilitate the understanding if company is delivering truly seamless customer experience. According to the Figure 2, the influencing customer satisfaction factors are defined and summarized in a Table 1:

Table 1 – The Periodic table of Customer Experience

Source: vassit.co.uk, downloaded on 2.04.2019

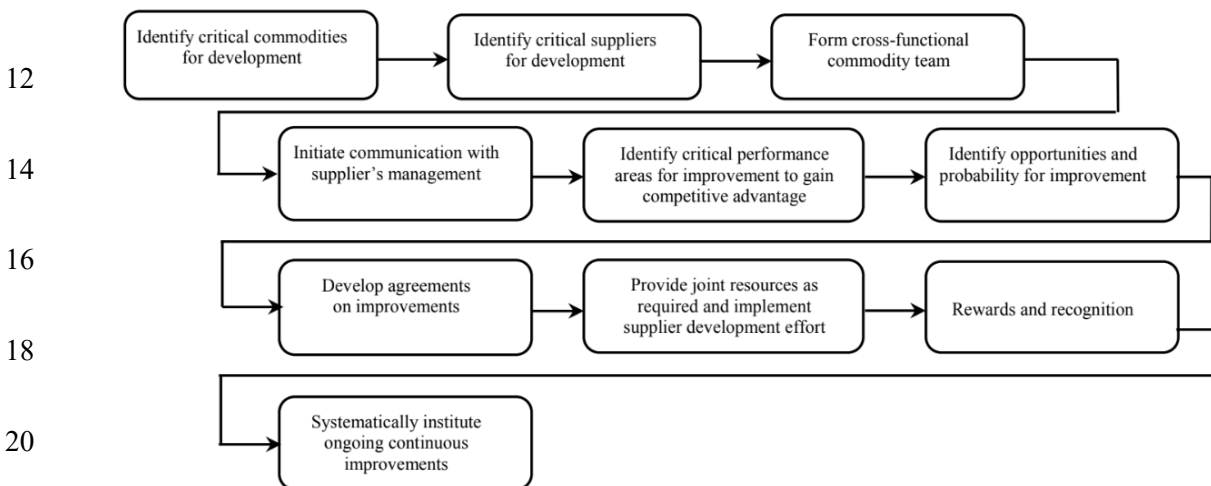
Element	Description
Accessibility	Ensuring that it is easy for customers to find and access the company products or services without barriers or interruptions, as well as that they can obtain good service whenever they have a doubt
Navigation	Navigating and browsing your store should be a straightforward and simple process. A website or platform should be user-friendly and not create difficulties in its understanding and work.
Page Load Speed	According to the findings of the Aberdeen Group, “A 1-second delay in page load time equals 11% fewer page views, a 16% decrease in customer satisfaction, and 7% loss in conversions.” The survey made by Akamai and Gomez.com, 79% of web shoppers who experience a slow website say they would not return to the site to buy again and around 44% of them would tell a friend about the poor online shopping experience.
Language	Speaking with your customer in their language is a benefit to any business as customer-oriented services. More than a half of consumers won’t make a purchase if information about a product isn’t available in their language
Memory	Customers become frustrated if they have to repeat themselves, expecting their information and data to follow them along. Memory also means remembering your customer’s needs and wants to avoid trying to sell products to customers, which they already have or clearly have no interest in.

Element	Description
Personalization	By personalizing the experience and sharing the right content, at the right time with the right people, the interactions are faster, easier and more efficient. This results in increased customer satisfaction and the likelihood of repeat visits.
Convenience	Convenience is an essential element of a positive customer experience. It influences how customers make decisions about what to buy, what services to use, where to go, and with whom to engage.
Intuition	This point is relating the anticipation of the needs and emotions of their customers, as well as solution for the problems that might appear in future, to create better and convenient experience and to strengthen the trust base. The objective is to evaluate and determine the customer impact, and reach out to customers proactively so the customer doesn't have to do it.
Real-Time Action	Real-time experiences are crucial for customer satisfaction. Real-time interactions is about showing up when the customer needs your services in terms of response and resolutions, like chatbots. Real-time is also means being actualized and proactivity.
Simplicity	Keep it simple for understanding to improve the chances getting the customer is a key. A study of the Latin American life insurance market observed that 40% of people who purchased a life insurance policy and were happy about their experience said it was because of a simple buying process.
Logic	Customers may be extremely satisfied with the company but lack the strong emotional connection of customers who are emotionally satisfied. They essentially behave no differently than customers who are dissatisfied. They have no reason to remain loyal. Therefore, they have to have a logical and proven reason to stay.
Deliverability	It is proven, that most of the customers are not willing to wait too long for anything, including services or replies about doubts. Shipping time, as well as in time provided clarifications, are not only influence purchase decisions but also has a major impact on customer satisfaction.
Choice	The more choices you can give your customers during the buying process, the more likely they are to feel in control of the experience that they have with your brand.

Element	Description
Community	It is important to consider the fact that customers will do their online research about the company and its services. The reputation is built on social media, websites, and review forums.
Moment of Truth	It is a make-or-break moments in the customer journey, that influence whether the customer will continue the journey, complete the task or interaction and continue to business. By identifying the moment of truth it will be easier to optimize the true impact in customer satisfaction.

2 **2.2.1 Customer – supplier relationship**

4 According to studies, in the customer-supplier relationship, the value stream is mutual, as well as created benefits. The value is not only transferred from the supplier to the customer but vice versa. In this case, supplier management is about the needs of both sides to see an attractive relationship to effectively create and transfer (Duffy, 2013). Supplier's development is having an effect on the performance of both sides, and in this case, it is a general method to improve its performance. In this figure Krause (1998) present a generic process model that include 10 steps for supplier development with a purpose to make systematic supplier development in process-oriented way.



22 Figure 3- Strategic supplier development process

Source: Krause (1998)

24 In figure 3 Krause (1998) present a generic process model that include 10 steps for
 26 supplier development with a purpose to make systematic supplier development in process-

oriented way. It includes critical commodities for development, identify critical suppliers for
2 development, form cross-functional commodity team, initiate communication with suppliers
management, identify critical performance areas for improvement to gain competitive advantage,
4 identify opportunities and probability for improvement, develop agreements on improvements,
provide joint resources as required and implement supplier development effort, rewards and
6 recognition and finally systematically institute ongoing continuous improvement (Krause et al.,
1998).

8 **2.3 Customer loyalty**

Customer loyalty is a crucial factor in companies' growth and their performance. Loyalty is
10 linked with the repeat business. Thus, a customer is loyal when he is frequently repurchasing a
product or service from a particular provider. Oliver defines loyalty as "A deeply held
12 commitment to re-buy or repatronize a preferred product or service in the future despite situational
influences and marketing efforts having the potential to cause switching behaviour" (cited by
14 Kotler, 2000).

The perceived value from the product and the service affects customer judgement about
16 his/her satisfaction or loyalty with the product or the service. The significance of customer loyalty
is that it is closely related to the company's continued survival and to strong future growth
18 (Fornell, 1992). Customers that are very satisfied with a company are very likely to remain with
that company that leads to future revenue for the company. It is now a widely accepted business
20 theory that customer retention optimizes profitability; the cost of acquiring new customers is
higher than the cost of retaining existing customers. Therefore, the aim of a service company is
22 to satisfy their customers in order to stimulate them to retain and to repeat their service purchase.

Customer loyalty- is a combination of the customer's professed likelihood to repurchase
24 from the same supplier in the future, and the likelihood to purchase a company's products or
services at various price points (price tolerance). Customer loyalty is the critical component of
26 the model as it stands as a proxy for profitability. (Biljana Angelova, Jusuf Zekiri, 2011)

2.4 Service quality

28 Service quality has become a major area of attention during the past few decades for
managers, researchers, practitioners because of its huge impact on business performance of firms.
30 According to Brown and Swartz (1989) think that customers prefer and value companies that
provide high service quality. Thus, the attainment of quality in products and services has become
32 a drive concern of the 1980s. Customers judge service quality relative to what they want by
comparing their perceptions of service experiences with their expectations of what the service

performance should be. Marketers described and measured only quality with tangible goods, where as quality in services was largely undefined and un-researched (Parasuraman, et.al. 1985).

The importance of quality to firms and customers is unequivocal because of its benefits contributing to market share and return on investment (Parasuraman, et al. 1985).

Quality is as a strategic tool for attaining efficiency and business performance. With service assurance companies increase chances of getting and attracting new customers. Crosby defined quality as 'conformance to requirements (Crosby, 1984), Eaglier and Langeard (1987) defined it as 'one that satisfies the customer', Parasuraman et al. (1994) defines it as a "global judgment, or attitude, relating to the superiority of the service. Service quality presents 'the consumer's overall impression of the relative inferiority / superiority of the organization and its services". According to the statements, the service quality is a key of survival to all servicing companies. The service quality has become a significant differentiator and the most powerful competitive weapon that organizations want to possess (Berry et al. 1988). By assuring quality companies try to get another advantage in their services to gain the competitive advantage.

Measuring goods quality is easier because it can be measured objectively as it is tangible, but service quality is an abstract item, intangible. According to Parasuraman et al.,(1988) service quality has three features which are unique to services: intangibility, heterogeneity, and inseparability of production and consumption. Therefore, they suggest that in the absence of objective measures, an appropriate assessment of the service quality of a firm is to measure consumers' perceptions of quality.

2.5 Customer satisfaction index (CSI) models

Since 1970s, researchers of consumer behavior and marketing in developed countries have begun to make comprehensive studies on customer satisfaction. Although these CSIs are fundamentally similar in measurement model (i.e. causal model), they have some obvious distinctions in model's structure and variable's selection so that their results cannot be compared with each other, stands Ronald van Haften.

There are 4 national CSI models are known as the most sophisticated and influential CSI models.

2.5.1 The Swedish Customer Loyalty Barometer (SCSB)

The original SCSB model (Fornell, 1992), shown in Fig. 14, contains two primary antecedents of satisfaction: perceptions of a customer's recent performance experience with a product or service, and customer expectations regarding that performance. More specifically, perceived performance is equated with perceived value, or the perceived level of quality received relative to the price or prices paid. Quality per dollar, or value, is a common denominator that

consumers use to compare brands and categories alike (Emery, 1969). The basic prediction is that as perceived value increases, satisfaction increases.



Figure 4 - Swedish Customer Loyalty Barometer

Source: <https://www.van-haaften.nl> downloaded 1.06.2019

The original SCSB includes a relationship from complaint behavior to customer loyalty. Although no prediction is made regarding this relationship, the direction and size of this relationship provides some diagnostic information as to the efficacy of a firm's customer service and complaint handling systems (Fornell, 1992). When the relationship is positive, a firm may be successfully turning complaining customers into loyal customers. When negative, complaining customers are predisposed to exit.

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2.5.2 The American Customer Satisfaction Index (ACSI)

The ACSI model, developed in 1994 and illustrated in Fig. 15, builds upon the original SCSB model specification, see figure 14. (For details of the ACSI survey and model see Fornell et al., 1996). The model is estimated for each of the approximate 200 firms in the survey based on a random sample of approximately 250 of the firm's customers. A total of 15 survey questions are used to operationalize the 6 constructs in the model. The survey questions are all rated on 1 to 10-point scales with the exception of price tolerance (described below) and complaint behavior (a

dichotomous variable indicating whether the customer has complained or not). In every case, the measurement variables are specified as reflective indicators of the latent constructs in the model.

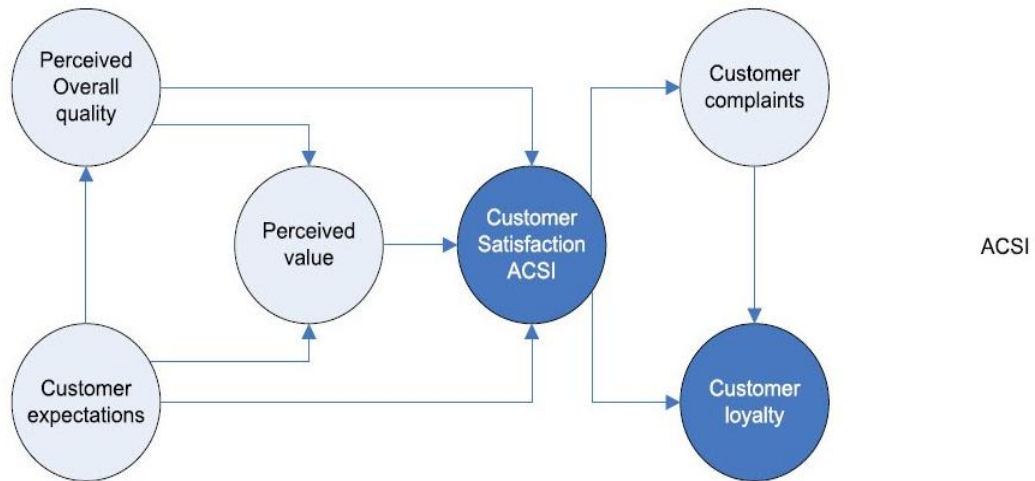


Figure 5 - American Customer Satisfaction Index

Source: <https://www.van-haaften.nl> downloaded 1.06.2019

Asking customers to rate customization quality, reliability quality, and overall quality allows the ACSI model to delineate a distinct quality construct that is separate from perceived value.

2.5.3 Norwegian Customer Satisfaction Barometer (NCSB)

The first NCSB model was identical to the original American model with the exception that it included corporate image and its relationships to customer satisfaction and customer loyalty.

The new model: replaces the value construct with a "pure" price construct; replaces customer expectations with corporate image as a consequence of satisfaction; includes two aspects of relationship commitment as well as corporate image as drivers of loyalty; incorporates the potential for direct effects of price on loyalty, and includes complaint handling as a driver of both satisfaction and loyalty.

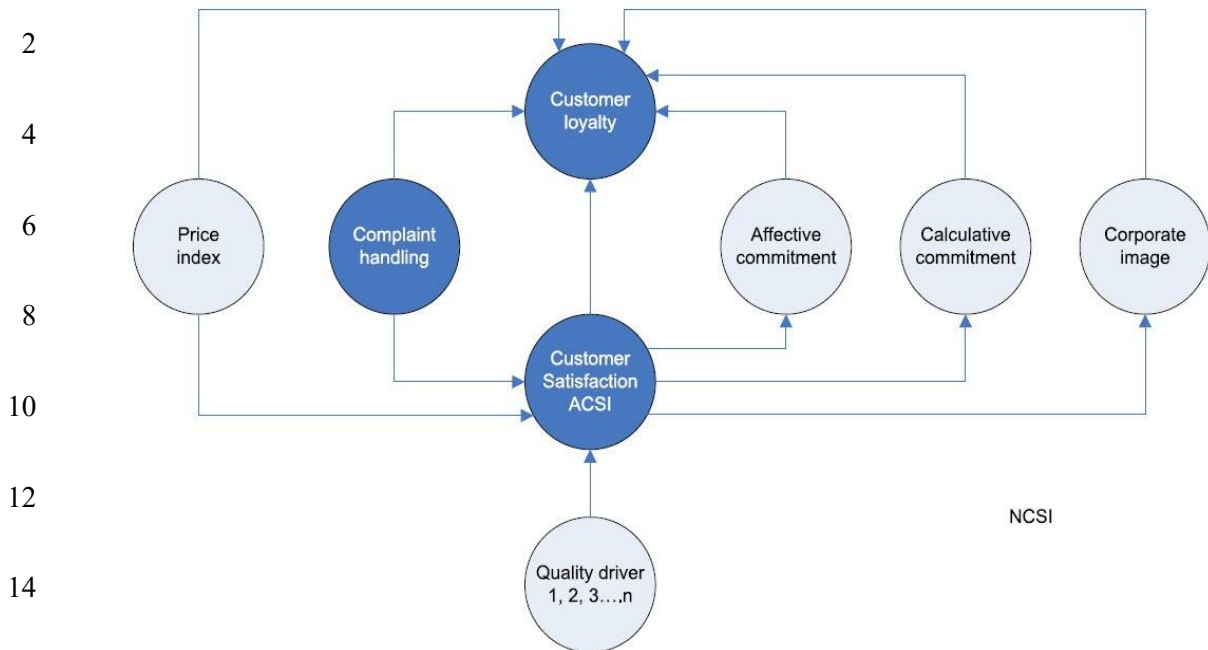


Figure 6 - Norwegian Customer Satisfaction Barometer

Source: <https://www.van-haaften.nl> downloaded 1.06.2019

In keeping with the evolution in marketing from a transactional to a relational orientation among service providers, the NCSB model was expanded over time to include a relationship commitment construct. The construct has evolved to focus on both the affective and calculative components of commitment. While the affective component is "hotter" or more emotional, the calculative component is based on "colder" aspects of the relationship such as switching costs. The commitment constructs are modelled as mediating the effects of satisfaction on loyalty and behavioral intentions.

2.5.4 The European Customer Satisfaction Index (ECSI)

The ECSI represents another variation on the ACSI model (Eklöf, 2000). The customer expectations, perceived quality, perceived value, customer satisfaction, and customer loyalty constructs are modelled the same as in the ACSI.

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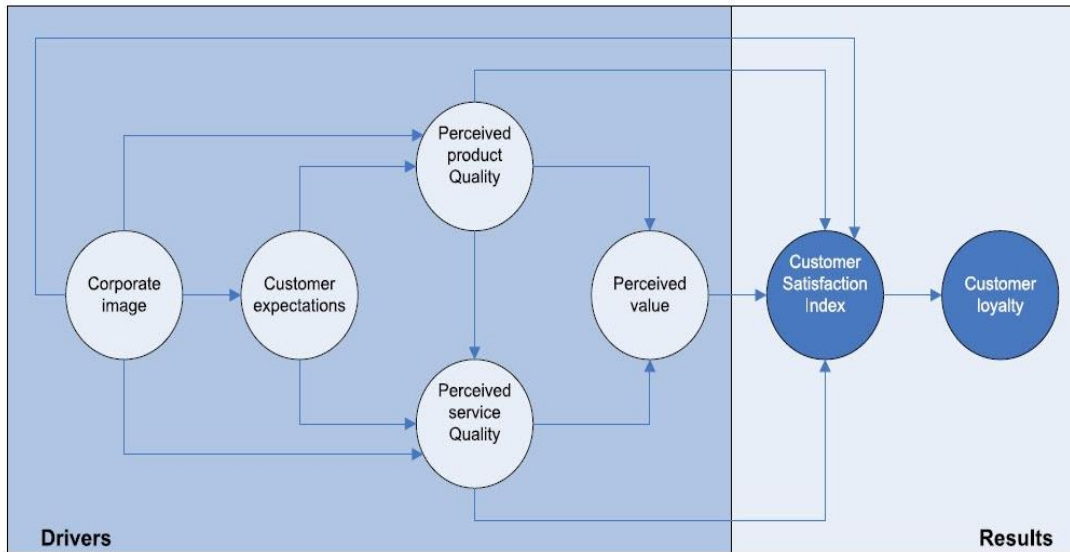


Figure 7 - European Customer Satisfaction Index

Source: <https://www.van-haaften.nl> downloaded 1.06.2019

For the ECSI the loyalty measures include likelihood of retention, likelihood of recommending the company or brand, and whether the amount customers are likely to purchase will increase. The ECSI model does not include the incidence of complaint behavior as a consequence of satisfaction and the ECSI model incorporates corporate image as a latent variable in the model.

The four CSI models are fundamentally similar in measurement model, they have some obvious distinctions. The objective of all CSI models is to provide results that are relevant, reliable, and valid and have predictive financial capability. In the table ... elaborated by Ronald van Haaften makes the comparison of the included latent variables determined. The table reflects the latent variables presented in each of the models described previously. Some characteristics are common, while others are unique.

Table 2 - Summary of latent variables of the different customer satisfaction models

Source: adapted from <https://www.van-haaften.nl>

Latent Variables	SCSB	ACSI	NCSB	ECSI
Customer expectations	Yes	Yes		Yes
Perceived overall quality		Yes		
Perceived performance	Yes			

Latent Variables	SCSB	ACSI	NCSB	ECSI
Perceived service quality				Yes
Perceived product quality				Yes
Quality drivers			Yes	
Affective commitment			Yes	
Calculative commitment			Yes	
Corporate image			Yes	Yes
Perceived value		Yes		Yes
Price index			Yes	
Complaint handling			Yes	
Customer complaints	Yes	Yes		
Customer satisfaction	Yes	Yes	Yes	Yes
Customer loyalty	Yes	Yes	Yes	Yes

2.6 Multi-sided platforms and its strategies

Two-sided markets are defined as a platform providing goods and services to two distinct end-users where the platform attempts to set the price for each type of end-user to “get both sides on board.” (Chakravorti and Roson, 2013).

Multi-sided markets are a good target for strategic envelopment (Eisenmann, 2011). There is a detected tendency for the digital startups to build platforms with a purpose of connection between social groups instead of creating an IT product (Alstyne, Parker, and Choudary, 2016). In the same time platform can act as intermediaries with marketplace function, or as transactional intermediaries with reseller function (Hagiu and Wright, 2013, 2015; Santoso and Erdaka, 2015).

This type of platforms tends to invest in keeping users in the platform in order to attract other groups, including customers, suppliers, as well as support users such as payment system providers (Gawer and Cusumano, 2008).

Multi-sided platforms as a business center by definition differ from a common single business.

At first, it includes two or more customer types. Second, various indirect externalities influence on customers within the platform. At last, to manage a two (or more)-sides clients effectively there is an intermediary to the role the interconnections (Evans, 2003). As the nature of sides can vary a lot, attracting them at the same time is a tough challenge. The firm should aim for a strategic alliance with any side as a starting point and grow the other side by utilizing the network effects (Caillaud and Jullien, 2003).

As customer engagement is seen as a valuable predictor of future business performance (Brodie et al., 2011, 2013), it helps to establish cooperation and synergy for existing customers and for the potential ones (Vivek et al., 2014). The engagement platforms are defined as “physical or virtual touch points designed to provide support for the exchange and integration of resources, and thereby co-creation of value between actors” (Braidbach et al., 2014, p. 594). The role of the engagement platform was studied also in the context of sharing economy (Braidbach and Brodie, 2017).

2.7 Benchmarking of multi-sided platform

According to researchers Andreas Hein, Maximilian Schreieck, Manuel Wiesche and Helmut Krcmar the platform governance can be summarized as in following Table 2, where detected different governance dimensions. Each of dimensions consists of a group of mechanisms, an aggregated description as provided in the papers and the data source.

Table 3 - Dimensions summary table

Source: adapted Andreas Hein, Maximilian Schreieck, Manuel Wiesche, Helmut Krcmar (2016)

Dimensions	Mechanisms	Description
Governance structure	Governance structure Decision rights Ownership status	Centralized or diffused governance. Platform governance then entails how the authority and responsibility for each class of decisions is divided between the platform owner and module developers. Ownership declares whether a platform itself is proprietary to a single firm or is shared by multiple owners. Source: (Nambisan 2013; Tiwana et al. 2010)
Resources and documentation	Platform transparency Platform boundary resources	Documentation ensures easy understanding and usability of the platform. Transparency of the platform. Governance decisions concerning the platform's marketplace are easy to follow and understand. Application programming interfaces

Dimensions	Mechanisms	Description
		(APIs) for cultivating platform ecosystems through third-party development. Source: Benlian (2015), Ghazawneh and Henfridsson (2013)
Accessibility and control	Output control and monitoring	The platform governance pre-specifies the principles by which outputs are evaluated, penalized, or rewarded Source: Tiwana (2010)
	Input control Securing	Controlling which products or services are allowed. Assess quality of services or products as a gatekeeping mechanism. Source: Tiwana (2010); Ghazawneh and Henfridsson (2013)
	Platform accessibility Process control Platform openness	Who has access to the platform and are there any restrictions on participation? Who controls the process and is in charge for setting up regulations? Is the platform open or closed? Constraints: Technical performance cost of required equipment, and cost of selling. Source: Benlian (2015); Eisenmann (2006); Tiwana (2010); Tilson (2010); Boudreau (2010)
Trust perceived risk	Strengthen trust Reduce perceived risk	Platform enhances trust. Perceived risk of platform participants is minimized. Source: Nambisan (2013)
Pricing	Pricing	Pricing is depended on who is setting the price, who decides on participation, who is paying and who values. Source: Bakos and Katsamakas (2008); Tan (2015); Caillaud and Jullien (2003); Armstrong (2006)
External Relationships	External relationship management	Management of inter-firm dependencies. Architecture of participation. Firm's ability to manage the relationships between its IT function and external stakeholders. The platform allows technical interoperability between other systems.

Dimensions	Mechanisms	Description
		Source: Benlian (2015); Tan (2015); Selander (2013)
Business model	Business model selection	Each of the selected business models has an impact on the set up of platform governance mechanism, therefore this dimension may be included.

2 Governance structure as a dimension defines such mechanisms as decision rights and the
 4 ownership status of the company. A platform governance can be structured according to the
 6 business model, for example centrally or diffused (Nambisan 2013). Furthermore, it is important
 8 how the authority and responsibilities are organized inside of the platform (Tiwana et al. 2010).

6 Resource and documentation topic is covering two important aspects - platform transparency
 8 and usage of platform boundary resources. Platform boundary resources such as application
 10 programming interfaces (APIs) were identified as an important factor for cultivating a platform
 12 ecosystem (Ghazawneh and Henfridsson 2013). Offering helpful tools which support developing
 14 applications, transparency on how to develop and how the platform works are important as well
 16 (Benlian et al. 2015)

12 The next three dimensions can be clustered as accessibility & control, starting with the
 14 mechanisms of output control and monitoring. According to the literature, output control is defined
 16 as a prespecification of principles by which an output of a developer is evaluated, penalized or
 18 rewarded (Tiwana et al. 2010). Control and securing covers what is allowed to be on the platform
 20 (Tiwana et al. 2010). Another way of protecting the platform of unwanted input is securing it to
 22 establish control (Ghazawneh and Henfridsson 2013). The third dimension is platform accessibility
 24 and platform openness, and covers regulations on restrictions and ownership of those (Eisenmann
 26 et al. 2006). Examples for constraints are the technical performance, cost of required equipment,
 28 the cost of selling and distribution restrictions in terms and conditions (Benlian et al. 2015). Another
 30 important aspect is process control, which contains methods and procedures that are in place to
 regulate the platform (Tiwana et al. 2010).

Trust & perceived risk forms the next dimension which relates to the nature of a platform
 ecosystem to enhance trust (Nambisan 2013) on the user or developer side.

The pricing as an important platform governance mechanism is clarifying which party is
 setting the price, who decides on participating on the platform, who is paying and which side profits
 (Bakos and Katsamakos 2008; Tan et al. 2015; Armstrong 2006; Caillaud and Jullien 2003). Lastly
 the eighth dimension is represented by managing external relationships (Tan 2015; Selander 2013).
 Another aspect is that the platform supports the mechanism of interoperability between different
 systems (Benlian 2015).

However the underlying business model can have an impact on all mentioned dimensions and

also influence the way how the implementation of governance mechanisms is build.

2 Results of practical implementation of the mechanisms described by the researchers are highlighted in Table 4 below prepared by them.

4

Table 4 - Result of the multiple-case analysis

6 Source: Andreas Hein, Maximilian Schreieck, Manuel Wiesche, Helmut Krcmar (2016)

Business Model	External relationships	Pricing	Trust & perceived risk	Accessibility & control			Resources & documentation	Governance structure	Dimension
<ul style="list-style-type: none"> Underlying business model 	<ul style="list-style-type: none"> External relationship management 	<ul style="list-style-type: none"> Pricing 	<ul style="list-style-type: none"> Strengthen trust Reduce perceived risk 	<ul style="list-style-type: none"> Output control Monitoring 	<ul style="list-style-type: none"> Input control Securing 	<ul style="list-style-type: none"> Platform accessibility Process control Platform openness 	<ul style="list-style-type: none"> Platform transparency Platform boundary resources 	<ul style="list-style-type: none"> Governance structure Decision rights Ownership status 	Mechanism
Social network	Strategic partnerships	Advertising, marketing, applications	Privacy settings, privacy issues	Ratings, "Likes", comments, Advertising dashboard	Community standards	No restrictions	API, Software Development Kit (SDK), documentation	Autocratic and centralized, self-organizing platform	Facebook (Facebook 2015; Champoux et al. 2012; Goodman and Dekay 2012)
Merchant	Partnerships through acquisition	Sales margins, payment and service fees	Several services to strengthen trust	Reviews, ratings, feedback profile, statistics	Optional inspection service	No restrictions	API, SDK, learning and training center	Central, self-organizing	Alibaba (Tan et al. 2015; Wing Sum et al. 2014; Alibaba 2015)
Service platform	Localities and local communities	Service and conversion fee	Insurance, verification and rating system	Asynchronous ranking, reviews, statistics, comments	Identity verification	Host is in control, identity verification,	Help center	Split, host has decision rights	Airbnb (Zervas et al. 2015; Salama 2014; Airbnb 2015; Kaplan and Nadler 2015)
	Strategic partnerships, service extension	Dynamic pricing, service fee	Background check, pricing surging, insurance, privacy issues	Two-sided ranking, suspension on ranking, comments	Background check, car requirements	Background check, Uber controls pricing	Help center, API, documentation	Split, Uber controls pricing, passenger controls through rating	Uber (Hall and Krueger 2015; Feeney 2015; Rogers 2015; Bond 2015; Isaac 2014; Uber 2015)
Application platform	Many partnerships	30% of sales, one time registration fee	Malware, rating, diversity of systems	Ratings, comments, number of downloads	No manual app reviews	Google developer account needed	SDK, API, documentation, checklist	Centric, from loose to tight control	Play Store (Fautrero and Cagueen 2013; Pon et al. 2014; Google 2015; Tilson et al. 2012)
	Selective, strategic partnerships	30% of sales, annual fee	Ratings, feedback mechanism, less fraud and malware	Ratings, comments, number of downloads	Manual reviews, censorship, protected system	Apple developer account needed	SDK, API, toolkits, documentation, guides	Centric, tight control	App Store (Tilson et al. 2012; Pagano and Maalej 2013; Chin et al. 2012)

2 The conclusions regarding each of mechanisms are following. The centralized governance
3 model offers a high degree of platform control and commercialization in exchange for less
4 transparency and user involvement. On the other side a more decentralized approach allows to
5 benefit from self-organizational effects by reducing administrative work when implementing for
6 example rating systems to determine the product or service quality. The tradeoff is a shift in platform
7 control towards the users making it harder to regulate the platform.

8 Implementing of the resources and documentation dimension offers companies to open up new
9 business markets, increase interconnectivity and effectiveness of distribution, supply and customer
10 channels as well as being a prerequisite for business models relying on external developers.
11 Arguments for not having an API are keeping information superiority by having a closed
12 architecture, dismissing business opportunities and opening the field for third party platforms
13 publishing platform data.

14 The platform accessibility dimension divides in two categories, making the platform accessible
15 for everyone and having restrictions. The result of giving anonymity to the users is a massive
16 growth, however if there are more restrictions and the background check is demanded the platform
17 gains in trust. The higher level of transparency is normally goes together with a lower platform
18 control. When an open source approach drives to a rapid development and user growth accompanied
19 by a lower usability, the limited openness comes with high process control, quality and customer
20 satisfaction. The input control and securing mechanism shows that no or laissez-faire input control
21 causes a greater variety of input but entails a decreased quality. All review companies use an output
22 control mechanism to check the quality of products or services. Ratings and comments indicate the
23 acceptance of content, but with the increase in perceived risk (Roosendaal 2011). Shifting the
24 quality assurance to the respective parties and therefore reduce administrative work for the platform
25 owner in a tradeoff for a decreased control (Tan et al. 2015).

26 The trust and perceived risk stays that anonymously without social consequences leads to a
27 higher degree of perceived risk as the result of cyber mobbing or crimes (Stutzman et al. 2013). The
28 vice versa politics of services will decrease anonymity, but give an increases trust.

29 All price models are strongly related to the business models. The higher registration fees for
30 developer can be considered as a quality gate trading quantity over quality (Tilson et al. 2012).
31 However, a lack of transparency on price setting can cause issues regardless of the business model
32 (Bond 2015).

33 In external relationships the main choice is to be very open and have a risk issues, or to limiting
34 the openness of the platform in partnerships in return of product and service protection (Fautrero
35 and Gueguen 2013).

36 Even similar business models that delivers services and described as shared economy, are
37 different in essential terms of services.

38

2.8 Conclusion

2 Customer satisfaction is very important in today's business world as according to Deng
et al., (2009) the ability of a service provider to create high degree of satisfaction is crucial for
4 product differentiation and developing strong relationship with customers. This satisfaction may
influence the concerned company by repurchase, purchase of more products, positive word of
6 mouth and willingness of the customer to pay more for the particular brand. Any business is likely
to lose market share, customers and investors if it fails to satisfy customers as effectively and
8 efficiently as its competitors is doing (Anderson, Fornell, and Mazvancheryl, 2004).

10 The engagement platforms perform the service that defines boundaries and context within
which parties engage. In platform sides interaction the sharing information is permitting to co-
create value, and support engagement activities and incentivize customer behavior intentions,
12 which leads to improvement of customer journey and experience.

14 A decentralized governance may lead to a more rapid user growth and could therefore be
used in the early mature states, where a centralized governance, having restrictions and limited
accessibility offers a high level of platform control in exchange for a reduced user involvement and
16 transparency on governance processes. This also supports the thesis of different states of maturity
in MSPs (Wareham et al. 2014). Complete openness goes with a potential higher user base, a less
18 secure platform due to anonymity and increased perceived risk. Having restrictions in place showed
that the quality of products and services can improve, process control is retained causing in
20 transparency and negative feedback limiting user freedom. This summary supports the idea of a
maturity model, where critical mass is achieved in the early stages with low control, where a more
22 mature state focuses on platform control (Wareham et al. 2014) and complements those findings by
highlighting tradeoffs that need to be taken into consideration.

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Chapter 3

2 Proposal of a conceptual framework for assess the level of 4 customer satisfaction

6 This chapter is dedicated to the elaboration of the conceptual framework based on the findings and conclusions made in the previous chapter. At first the critical factors for customer satisfaction found will be described together with the importance of each detected factor.

8 The framework presented is based on the cross findings and correlations detected between platform governance dimensions and the elements of customer satisfaction.

10 In general, this chapter aims to answer two research question defined in the Introduction part:

12 - *Which factors are critical for level of customer satisfaction?*

- *How to analyze the factors of customer satisfaction to improve customer satisfaction level*

14 *in the context of multi-sided platforms?*

3.1 Critical success factors for customer satisfaction

16 From all previously studied literature and cases, it can be concluded that authors are common about defining a key to customer satisfaction. A high customer satisfaction includes customer
18 loyalty, less price sensitiveness, positive feedback and increased involvement into a process.

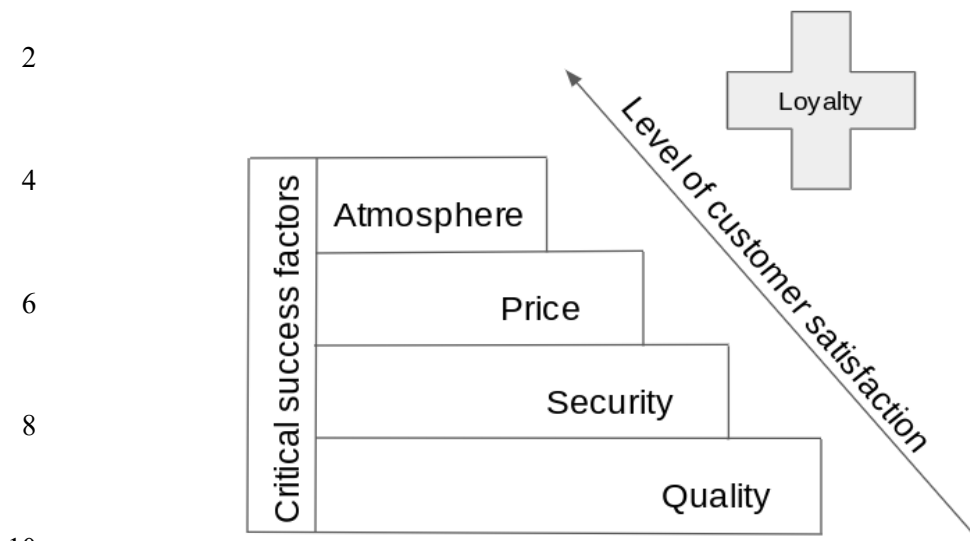


Figure 8 - Critical success factors for customer satisfaction

Quality: All researchers are agreed that Quality is crucial for customer satisfaction. The quality in this case is not referring only the quality of the product or service provided by the company, those are obligatory factors, but also delivery quality, as well as expertise in selected field. Inside the quality it is also lying the understanding and prevention of our customer needs and possible problems solution before. It is also possible to include memory as a part of quality increase. Prevention of needs and on time provided solutions requires attention to the customer and gathering the information regarding specifics. Quality also includes such important aspects as simplicity and intuition as both of the elements lead to easy understanding of the service or product and, in case of multi-sided platforms, a tool presented in front of the customer.

The incorporated elements of customer satisfaction are Intuition, Simplicity, Personalized, page load speed, Accessibility, Simplicity, deliverability, memory, language, Navigation, Community, Logic, Intuition, Moment of truth, Choice, Convenience. In other words, the description of each of the elements presented is reflecting the quality of the product/service offered.

Security: Security is all about the trust between two parties, and openness to your client. It goes without saying that to gain a customer's loyalty, a company does not have such an option as lying about their services, products, capabilities or legal issues. The same thing is regarding the security while platform access or payment process. Customer expect that their personal data would be not only saved and memorized, but not shared with third parties or used in any other kind of unauthorized ways. For the multi-sided platform security means that involved parties had a background check and each of the participants can be sure about security of possible partners. In this case, having pre-checked choice options is essential.

The incorporated elements of customer satisfaction are Convenience, Accessibility, Simplicity, deliverability, memory, language, Navigation.

Price: Price as a third step is touching 2 different points in case of multi-sided platforms: the price of the platform services performed and the price of the products or services that can be obtained by use of the platform. The first point stands that the price for provided services is reasonable, therefore those services creating an added value for the customer. When the second point is a kind of guarantee that by using the platform, customer will find best possible options presented in the market.

The incorporated elements of customer satisfaction are Real time, choice, and deliverability.

Atmosphere: Finally atmosphere includes the feeling of belonging to the community. A good created atmosphere is an emotional satisfaction driver, which as a consequence will lead to positive references and positive word of mouth. Furthermore, the emotional satisfaction leads to increase of effortless and native level trust, which lead to customers' loyalty.

The incorporated elements of customer satisfaction are Convenience, Community, Logic, and Intuition.

3.2 Conceptual framework

As multi-sided platforms represented in the market are performing different type of behavior and provide vary types of services, therefore each platform governance type is supposed to have a specific structure of customer satisfaction strategy, which is adequate for a business in a case. However, it is possible to sum up and make a general conclusion out of previously made research regarding it. The table 3 below represent a basic broad model which is pointing out which element of customer satisfaction highlighted previously the organization should work out to improve customer satisfaction basing themselves on each dimension.

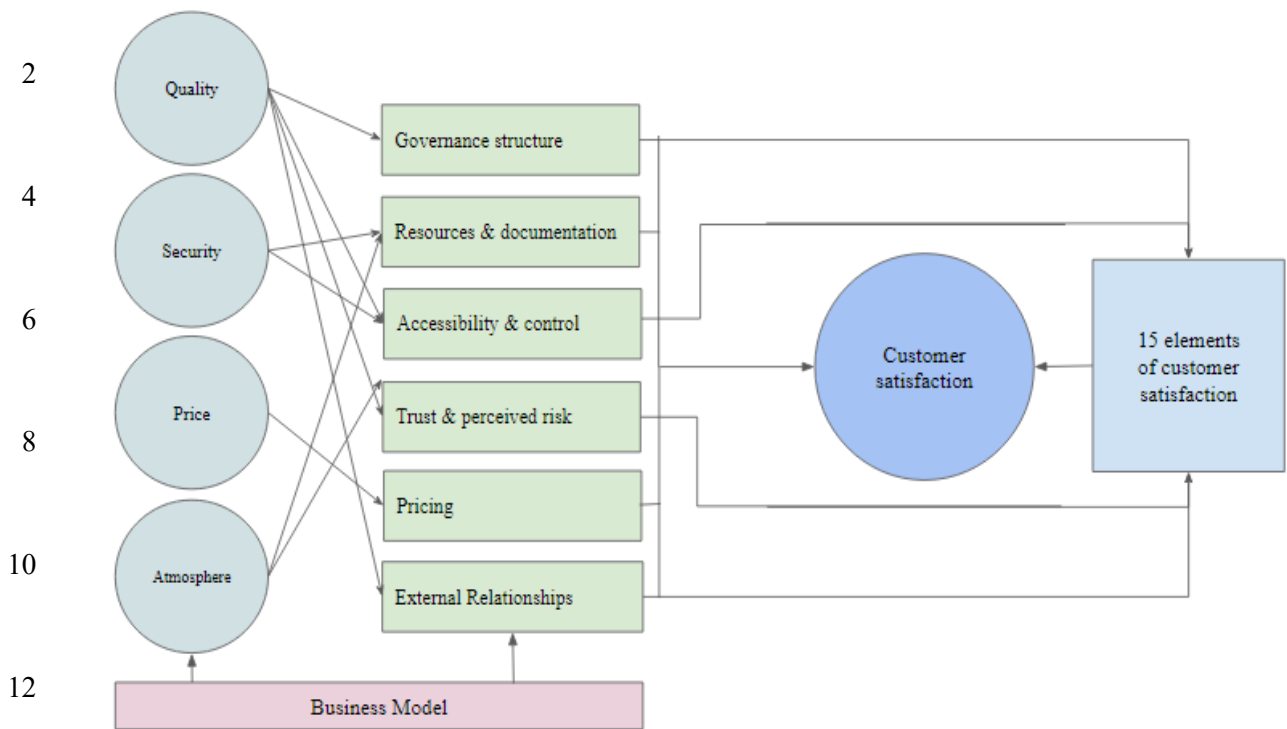


Figure 9 - A framework of improvement of the customer satisfaction

The table 5 is explaining the dependency between critical factors, dimensions and customer satisfaction elements.

Table 5 - The dependency between critical factors, dimensions and customer satisfaction elements

Critical Factor	Dimension	Customer satisfaction element corresponding
Quality	Governance structure	Intuition, Simplicity, Personalized, page load speed
Security, Atmosphere	Resources & documentation	Convenience
Quality, Security	Accessibility & control	Accessibility, Simplicity, deliverability, memory, language, Navigation
Atmosphere, Quality	Trust & perceived risk	Community, Logic, Intuition
Price	Pricing	Real time, choice, deliverability

Critical Factor	Dimension	Customer satisfaction element corresponding
Quality	External Relationships	Moment of truth, Choice, Convenience
Business Model		

2 The distribution of the detected 15 key elements of customer satisfaction is made based on
 4 their significance and description. The Business Model is a separated dimension, which is not linked
 4 to any of the elements of customer satisfaction, as it is a business model itself defines majority of
 6 the specific characteristics of each organization.

6 Some of the elements can be relative in more than one dimension and influence more than one
 8 mechanism, as well as critical factors corresponding. The separation of the elements is not definitive
 8 and does not mean improving of one element will have a direct effect on one dimension only. In
 10 fact, all of them are interconnected. In this case, the nominal separation of the elements is serving
 10 for a better understanding and easier applicability according to a specific needs of involved parts:
 12 the organization and their customers. The combination of the critical factors of customer satisfaction
 12 with the corresponding mechanisms and elements of customer satisfaction is creating the way to
 14 measure and influence the general level of customer satisfaction in the company.

14 For multi-sided platforms specifically, this division of the concept is supposed to get closer to
 16 the customer by using a specific characteristics of each dimension. Accordingly, after the definition
 16 of business model and its specific characteristics, the next step is evaluation of each presented
 16 element. For the evaluation of the elements was elaborated the Evaluation list.

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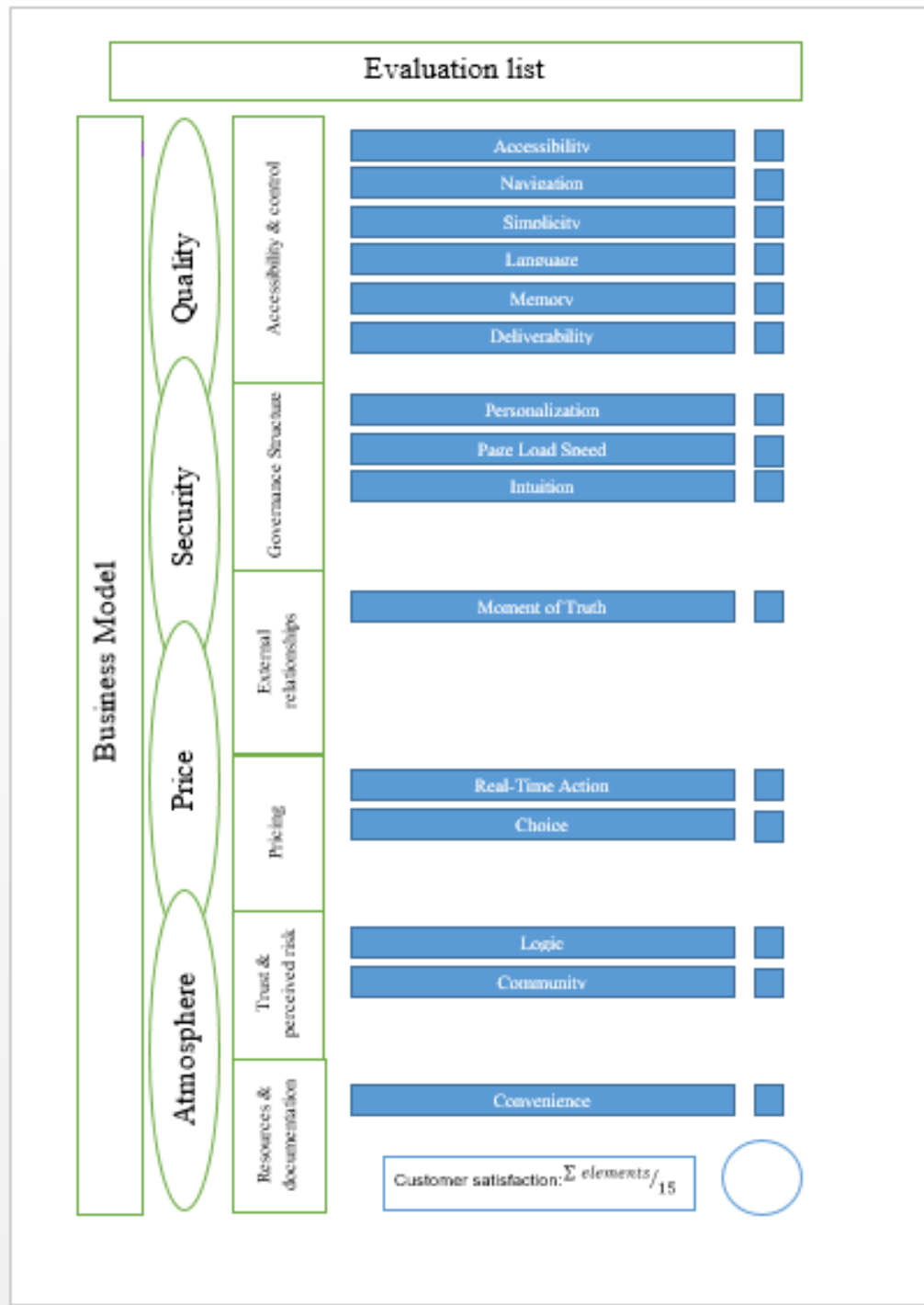


Figure 10 - Evaluation List

Each element should be evaluated by the company due to the description provided in the Table 10. The table is aiming to facilitate the understanding of each of the element and their interdependency with critical factors and mechanisms.

Table 6 - Customer satisfaction level measurement list

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Critical Factor	Mechanism	Element	Description	Value
Quality, Security	Accessibility & control	Accessibility	How reachable the platform for the user? How easy to find the relative information? How easy the customer can find platform in web?	X
		Navigation	Is there a site? Does it provide the direct access to the platform? How difficult is to obtain the access?	X
		Simplicity	How simple is platform constructed? Is it user-friendly? How understandable is it?	X
		Language	How many languages are available on the platform? The translations are correct? How many error in the user might find?	X
		Memory	Is there any possibility to remember your user? How much data do you save? Is it available for the user?	X
Quality	Governance structure	Persona- lization	The structure is flexible? Is it possible to change the interface? Is it possible to personalize? Is it tailor-made?	X
		Page Load Speed	How much time takes the main page load? How frequent error? How much time takes the page load while using the service (step to step)?	X

Critical Factor	Mechanism	Element	Description	Value
		Intuition	How much the navigation is intuitive? How much intuitive is the service?	X
	External Relationships	Moment of Truth	Will you client stay with you? Will your client come back to the service use? Was the experience good?	X
Price	Pricing	Real-Time Action	What is a price? Is it competitive?	X
Security, Atmosphere	Resources & documentation	Convenience	Is the data available on the platform safe? Do you secure the data base? Is it possible to see the other user/company data?	X
Atmosphere, Quality	Trust & perceived risk	Logic	The workflow of the platform is logic? Do you users understand it?	X
		Community	Do users have any support while using? Is there any trainings provided? Is support available for all clients? Is it easily reachable?	X
Quality, Security	Accessibility & control	Deliverability	How much fast can the user reach th service provided by you? Is it available all the time?	X
Price	Pricing	Choice	Do you offer a choice on the platform? How flexible is it?	X

- 2 Each of the elements can be evaluated in scale from 0 to 10, where 0 is represents “not flexible” or “not exists” and 10 “strong positioning”, as extremum. The other values of the scale are: 2 - only
4 some element characteristics are presented, not fully implemented, 4 - the element is partially
6 presented, 6 - the element presented, but half implemented, 8 - the element fully presented, but
needs further development.

After the evaluation of each element of customer satisfaction, the average value taken out of 15 variables considered a *customer satisfaction coefficient* and representing the current level of customer satisfaction for a certain organization.

$$\text{Customer satisfaction: } \frac{\sum \text{elements}}{15}$$

Within improvement of any element the average value increases and vice versa, with represents the interconnection between all and their influence one on another.

The results of the evaluation should be introduced to the evaluation list, where also should be calculated the customer satisfaction coefficient.

The result of the previously made evaluation of each element should be mapped and represented in a round diagram with a value attributed to each of the element. The average value obtained after the calculation is representing the current level of customer satisfaction of the particular multi-sided platform, as it is illustrated in the Figure 11 below.

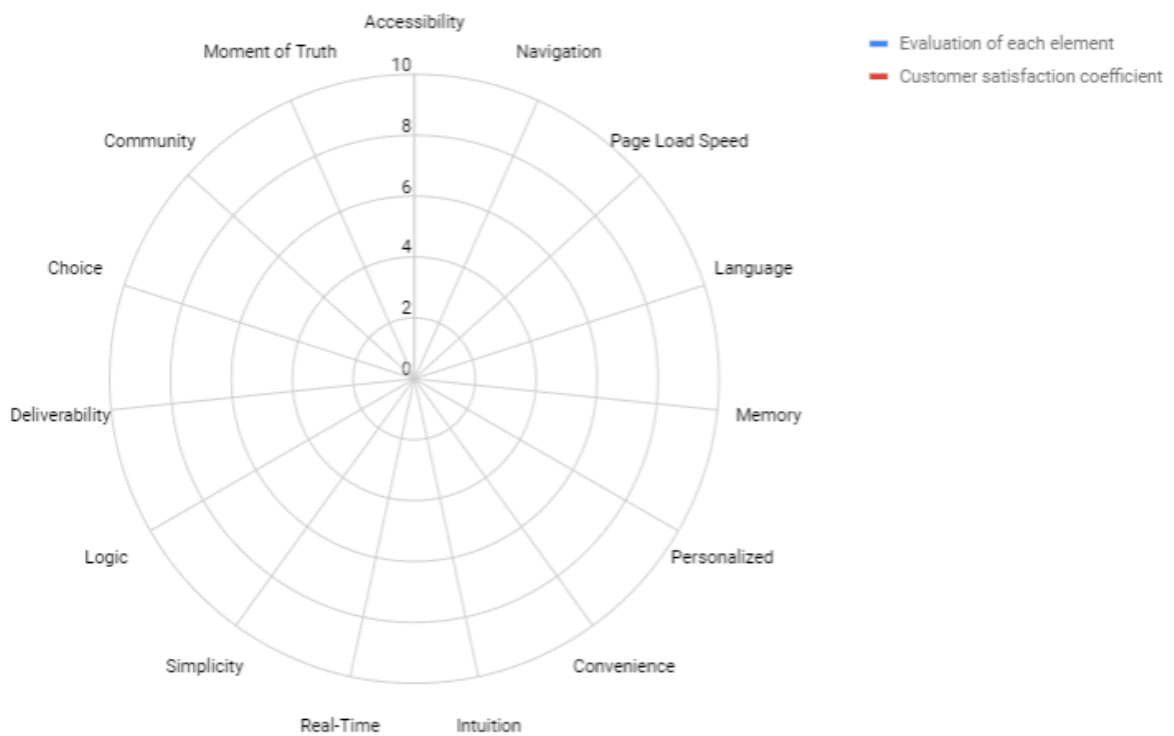


Figure 11 - Diagram for measuring of level of customer satisfaction

The diagram can represent the current situation as well as desirable one. Therefore, any improvement can be easily detected and mapped.

3.3 Framework Consideration

2 By the proposal of the framework above, the final research question is considered answered.
3 However, this is a theoretical construct, and therefore it needs to be expand its viability by applying
4 it to a practical context. The framework was validated on a case study of Facebook presented on a
5 previous chapter.

6 Accordingly the desirable improvements can be elaborated for each element with a purpose to
7 increase average coefficient of customer satisfaction. Needs to mention, the external evaluation
8 based on information available information taken from public source may be quite subject, as the
9 full and most competent evaluation will be always made my each organization, basing themselves
10 on internal information, which in this case will reflect the true existing situation.

Chapter 4

2 Easy4Pro customer satisfaction strategy

4 One of the motivational factors for the researcher for this project is a work at an Easy4Pro
6 company, which is a part of Redspere group. For this reason, in this chapter will be presented the
description of the Redspere group and Easy4Pro company in particular.

8 The Easy4Pro most important for this research internal processes will be presented in the
following chapter.

10 The researcher is aiming to evaluate current situation of customer satisfaction level of the
company's activity by applying the assessment of the framework elaborated in the previous
12 chapter. To do so the existing measures will be presented together with the barriers that company
faces.

4.1 Redspheer Group

14 Redspheer is a transport and logistics European group that gathers all its companies within one
digital open platform that simplifies and facilitates on-demand delivery, was founded in 1981. It is
16 aiming to disrupt and shape the on-demand delivery market by integrating its physical and digital
dimensions, which is achieved with an entrepreneurial spirit and the constant search for simplicity
18 and transparency. Today, Redspheer employs more than 640 people in Europe and keeps recruiting
to support its growth. The group's turnover reached a record of 300M€ in 2018.

20 Main services provided by all companies of Redspheer group are premium road freight,
premium air freight including trade lane service, Europe wide same day service, air charter and
22 OBC.

Key customers of the group are Volkswagen, General Motors, Renault, Continental, Hella, Caterpillar, EADS, Tyco, Delphi, Faurecia and Bosch.

The group is present in 19 countries with 50 representing offices in Europe, Africa, Asia and United States.

Currently the Redsphere group incorporates following organizations: Flash, Easy4Pro, Easy2Go, Roberts.eu, Upela, Easy2Trace, Genius Academy, Yoctu and Schwerdtfeger Transport.



Figura 12 - Redsphere structure

Source: <https://www.flash.global/en/flash-company/history/>, downloaded on 1.05.2019

4.2 About Easy4Pro

Launched in 2017, Easy4Pro is a marketplace enabling large industrial shippers to organize, manage and execute on-demand transport order flows. It facilitates the sourcing process with a common tool used across multiple industrial sites. It allows to reduce transport spending with an access of all sites to negotiated prices. It improves cost controlling with a business intelligence increasing transparency on market prices on a highly priced market segment.

The business model is based on a transaction fee charged to both shippers and carriers agreed previously.

Main goals are defined as build network, find logistics solutions, benchmark offers, enable transparency, generate savings and digitalize data.

Existing solution proposed for the client gives the opportunity to gain control of on demand spends with in following advantages:

- better sourcing through registered carriers on the marketplace accessible to all client sites

- improved cost controlling with access to
 - consolidated / normalize spend across industrial sites
 - Increased transparency on market prices on a highly priced market segment.
- Access to large B2B industrial clients

The core offer is online marketplace for large B2B clients, which gives a possibility to organize, manage and execute transport order flows, focus on urgent or on-demand flows. However, there are no limitations introduced, which means any kind of transport can be organized through the platform.

As a result the following problems are solved by using the Easy4Pro platform:

Table 7 - Problems solved by Easy4Pro platform

Problem	Solution
Time consuming process	The order requester defines the bidding time, which is for suppliers' looks like a reverse auction format. The requester can select the best offer given basing themselves on an own criteria of selection (best price or timing, for example). On the platform each customer has access to the statistics of the requests made and prices accepted.
Limited number of suppliers reached	The number of suppliers possible to reach during limited time for urgent transport is increased by elimination of a personal contact with each supplier, which was substituted by automatically sent invitation for a bidding. The bidding process is built with an objective to be conducted by suppliers only without customers' interaction.
Limited overview	Following the increased number of a bidders, the order requester may have a fuller overview on the market and its tendencies in terms of pricing. In the same time supplier get a knowledge of compatible he is on a market.
Access to big groups	Suppliers get easier access to the big clients and groups and get a chance to work with them.

4.2.1 Easy4Pro Customer Journey

The interaction between involved and interested parties is made directly through the platform. The platform was built with a purpose to give a separated access for the types of clients - order requesters and suppliers. This decision is conducted by the reasoning that each of the part has

different interest before entering in contact with another, because even the moment and the cause of the platform use are different. For requestor the interaction starts with the urgent transportation need. The client enters to the platform and proceed for the order creation. While order creation, he is also define the transport companies to be involved into the bidding. After validation of the order created, the bidding starts and only after end of the defined time, the client may select the offer. Next step is a actual transport service action.

For the supplier the interaction starts only after the receiving invitation for the bidding email. The supplier enters to the platform and goes directly to the bidding. There he has several attempt to quote according to his capability to accomplish the order. After the bidding is over and the bidding requester selected the offer, the supplier receives the email with order details confirmation. The next step is transport service action.

The customer journey is presented in the figure below:

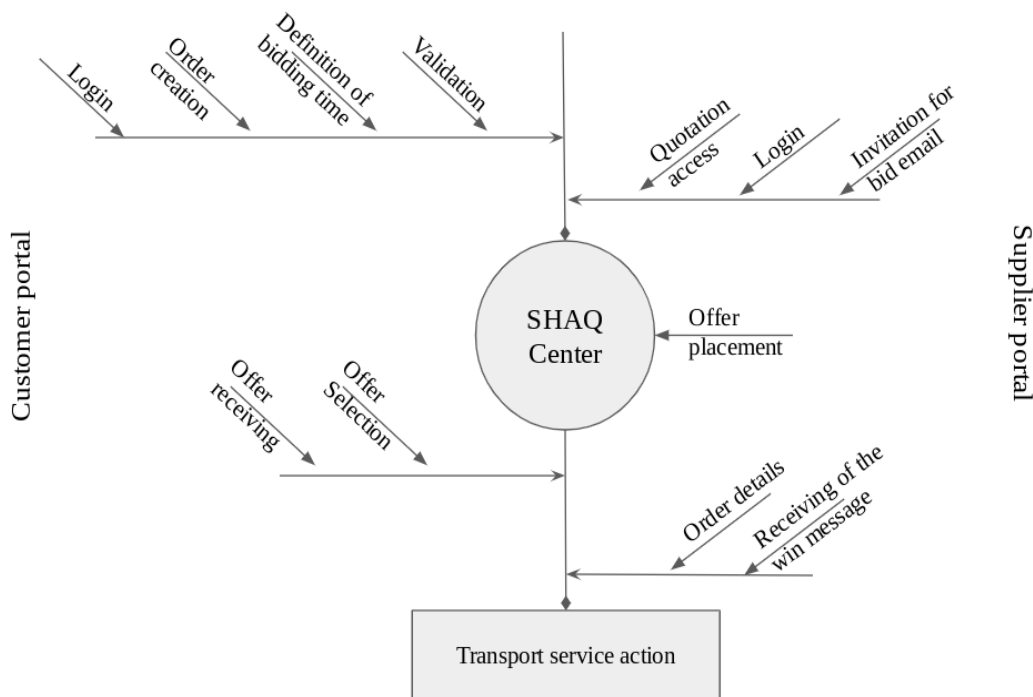


Figure 13 - Customer Journey on Easy4Pro Platform

4.2.2 Easy4Pro Governance Mechanism

The platform was evaluated as well according to its Governance Mechanism. The summary table is representing those findings.

Table 8 - Easy4Pro Platform Governance Mechanism

Dimensions	Mechanism	Easy4Pro
Governance structure	Governance structure Decision rights Ownership status	Autocratic and centralized, self-organizing platform, tight control. According to the Easy4Pro politics, all platform governance is centralized. The customer is created by the Easy4Pro support team and only after approval. All decisions are taken directly by customer, like for example user creation approval, as well as suppliers' linkage.
Resources & documentation	Platform transparency Platform boundary resources	Documentation ensures easy understanding and usability of the platform, every client assigned a contract before start of any implementations and changes. Every setting and governance decision is taken or approved by clients HQ.
Accessibility & control	Platform accessibility Process control Platform openness	For customers - no restrictions For suppliers - background check
	Input control Securing	Background check for suppliers
	Output control Monitoring	Statistics feature available on the platform
Trust & perceived risk	Strengthen trust Reduce perceived risk	Background check, pricing surging, insurance, privacy issues
Pricing	Pricing	Dynamic pricing, service fee
External relationships	External management relationship	Selective, strategic partnerships
Business Model	Underlying business model	Service platform

2 4.2.3 Customer Satisfaction

4 A multi-sided platform from its name implies participation or involvement of two or more
parties into the service provided. Easy4Pro as a marketplace is joining the transport service
6 requester with the transport service supplier. In this case each part involved in a process is having
a different journey and, as a result, different customer experience. Accordingly their level of
customer satisfaction is designed of various measures of each element. Even if the final average
8 value, which defines customer experience, is same, the variables responsible for that are not equal.

At the moment there are few ways available to measure the satisfaction level:

- 10 1. Number of clicks while order creation/offer presentation made by client
- 12 2. Customers and suppliers replies for the questionnaires prepared by the Easy4Pro
team
- 14 3. Customers and suppliers direct feedback while meetings with the team
- 16 4. Users evaluation of given reply of the support team, when there was a request made
or a claim presented
- 18 5. Annual evaluation of savings (for requesters) or gains (for suppliers) made by each
organization

18 However, besides made work in the field there are few existing problems with measurement:

- 20 - Lack of replies for satisfaction questionnaire. Normally, it may happen for the
following reasons:
 - 22 a. client is not satisfied, but is not ready to make a claim or ask for any kind
of clarification,
 - 24 b. client does not care about reply, which means he is not involved into the
process and his interest in the future work is low
 - 26 c. message goes to spam box or not easily readable, basically this means that
the communication provided is not reaching the audience.
- 28 - No access to real savings/earnings data of each client, as a result the organization
can see the benefits only by themselves at the end of the year, and Easy4Pro do not have
any data regarding it.

32 **Evaluation of Easy4Pro Customer Satisfaction according to the Framework proposed**

34 As referred previously, the Esy4Pro had two sides of the platform which were crossed in one
point, called SHAQ center. For this reason, the general evaluation of two sides together will not
36 provide the viable result for the evaluation.

The researcher decided to make an evaluation of each side of the platform separately, to be able to identify the loops and lacks in elements, which can be worked out to improve the customer satisfaction level: in Customer portal and in Suppliers Portal.

The results of the evaluation may be quite different, as well as the coefficients obtained. This phenomenon can be easily explained by the fact that two sides of one platform are not identical, due to the specific dedication of each of them. On customer side it is order creation and offer selection as main actions, on supplier side is it offer placement and confirmation.

The evaluation of the existing level of customer satisfaction on customer portal may be found in table below:

Table 9 - Existing level of customer satisfaction on Customer portal

Critical Factor	Mechanism	Element	Description	Value
Quality, Security	Accessibility & control	Accessibility	Easy to find for group clients, however site provides only the information regarding the main objectives and general description.	2
		Navigation	Site does not provide direct access to the platform	2
		Simplicity	As all features are made with an objective to be as simple and logical as possible.	8
		Language	Three languages are available on the platform (EN, FR, DE)	6
		Memory	All requests are saved on the platform statistics and available for all the customers. On the platform also available specific feature which facilitated the ordering process based on the memory form.	8
Quality	Governance structure	Personalization	The structure is not flexible and pre-determined. Customer can define only one feature to be available or not.	1

Critical Factor	Mechanism	Element	Description	Value
		Page Load Speed	The validation process the action of validation may take up to 3 minutes.	5
		Intuition	All features available on the platform and the way it works are intuitive and user-friendly. Besides it, the Easy4Pro team provides training sessions, and needed explanations to all customers. User manuals are sent on demand.	7
	External Relationships	Moment of Truth	Each client has the trial period dedicated to the test of the platform. Normal, those clients continue using.	9
Price	Pricing	Real-Time Action	All experience on the platform are happening in real time and in direct interaction with involved parts.	10
Security, Atmosphere	Resources & documentation	Convenience	All the information available on the platform is a part of NDA and the law of the information security.	8
Atmosphere, Quality	Trust & perceived risk	Logic	The logical customer satisfaction is on a high level as the customer can have a full overview on the bidding process.	8
		Community	By providing the support to each user and creating the viable relationships with customers, there is more and more detected tendency to use only the service provided by the platform, switching from the other external ways.	8

Critical Factor	Mechanism	Element	Description	Value
Quality, Security	Accessibility & control	Deliverability	Platform is facilitation on-demand and urgent transports, therefore the involved parts are aware of urgency of the requests.	9
Price	Pricing	Choice	All the offers that may be found on the platform are provided by the suppliers previously approved by each client. In this way, there are confidence in each of them.	10

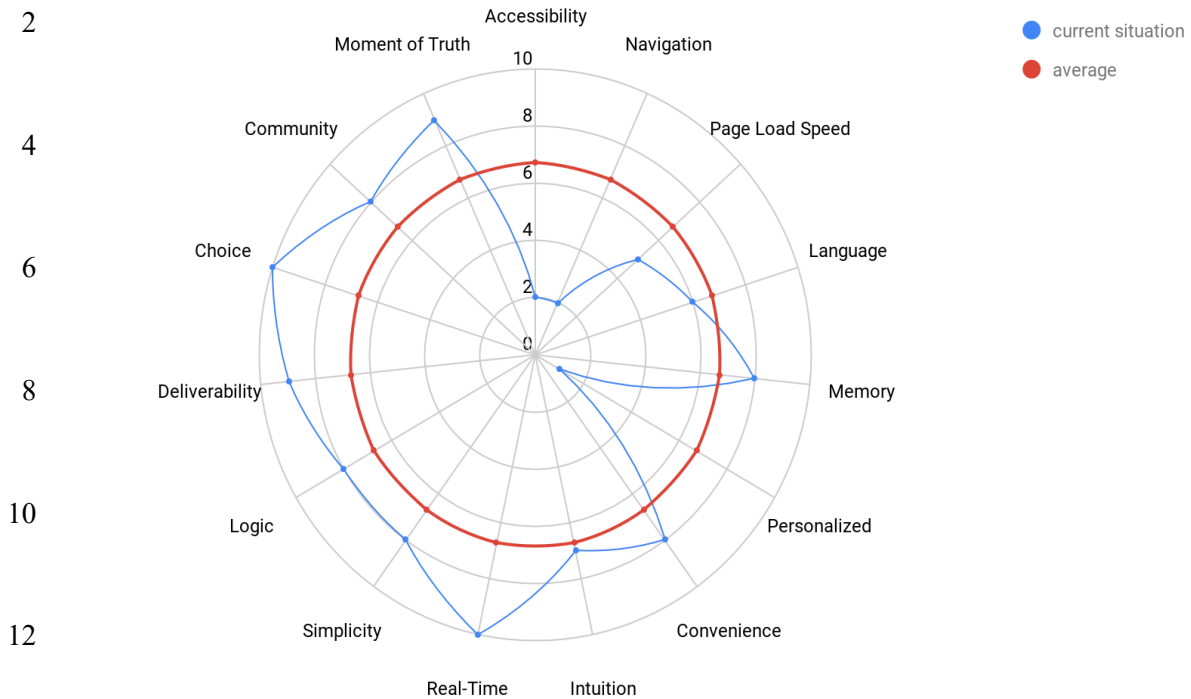


Figure 14 - The current level of customer satisfaction on customer portal

According to the diagram created, the current level of customer satisfaction on customer side is corresponding of the coefficient of 6.7. This result is expected and is quite satisfying for the team, however might be improved on some levels to reach a better result in customer satisfaction.

The evaluation of the existing level of customer satisfaction on suppliers' portal may be found in table 10.

Table 10 - Exiting level of suppliers' satisfaction on Suppliers portal

2

Critical Factor	Mechanism	Element	Description	Value
Quality, Security	Accessibility & control	Accessibility	Easy to find for suppliers, however site provides only the information regarding the main objectives and general description.	4
		Navigation	Site does not provide direct access to the platform	2
		Simplicity	As all features are made with an objective to be as simple and logical as possible	5
		Language	Available only default English	1
		Memory	All responded requests are saved on the platform statistics and available for all the suppliers.	6
Quality	Governance structure	Personalization	The structure is not flexible and pre-determined.	0
		Page Load Speed	The validation process the action of validation may take up to 3 minutes.	6
		Intuition	The process of reply on request and the bidding are intuitive and user-friendly, however some features may be a matter of doubt in term of functionality. Besides it, the Easy4Pro team provides training sessions, and needed explanations to all suppliers. User manuals are sent during new supplier setting.	4

Critical Factor	Mechanism	Element	Description	Value
	External Relationships	Moment of Truth	Each client has the trial period dedicated to the test of the platform. Main reason to leave a platform and not continue working with the tool is low competitive ability.	10
Price	Pricing	Real-Time Action	All experience on the platform are happening in real time and in direct interaction with involved parts.	6
Security, Atmosphere	Resources & documentation	Convenience	All the information available on the platform is a part of NDA and the law of the information security.	8
Atmosphere, Quality	Trust & perceived risk	Logic	The applied color system helps the supplier evaluate the given offer according to the market.	9
		Community	Besides providing the support to each user and creating the viable relationships with suppliers, there is understandable concurrence between the suppliers.	10
Quality, Security	Accessibility & control	Deliverability	Each request is coming with described time limits to be done, therefore the deliverability is not a question. Exceptions are dedicated to the unpredicted external reasons.	4
Price	Pricing	Choice	All supplier are confirming their willingness to work with every client before being linked.	8

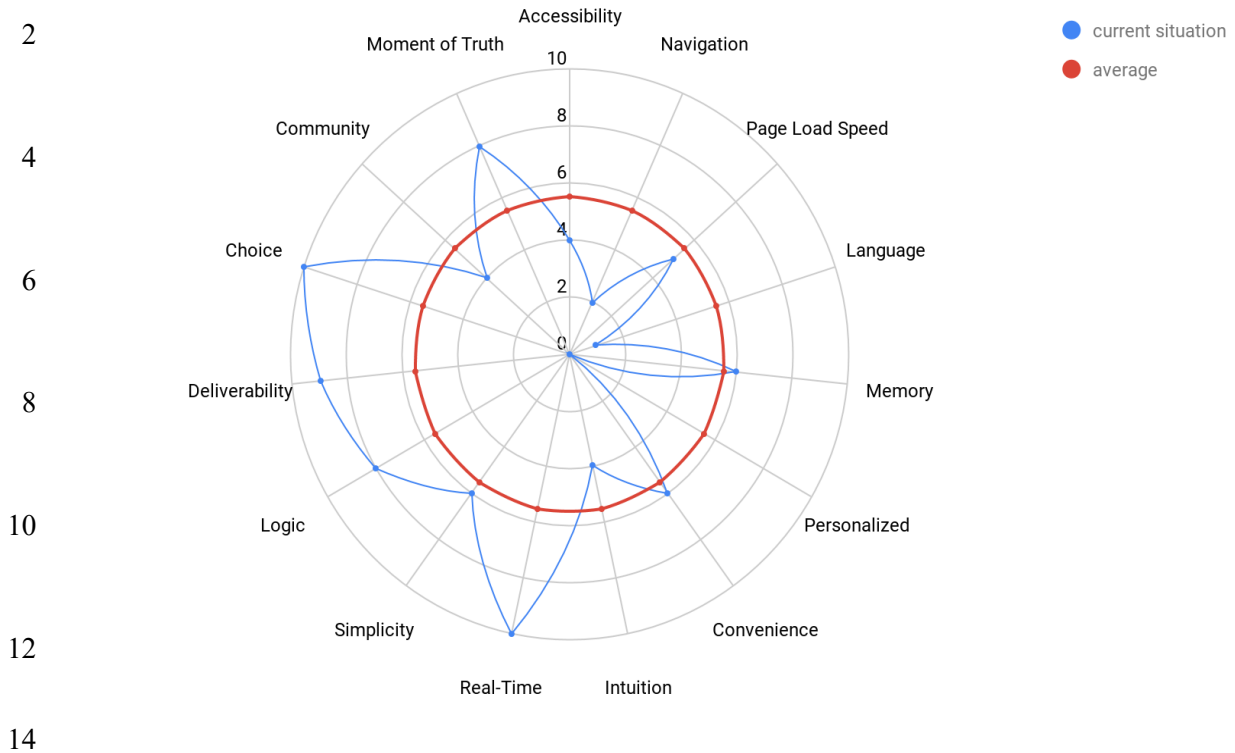


Figure 15 - The current level of customer satisfaction on customer portal

After the evaluation, it was found that the average value of the customer satisfaction is 5.5, which is below the expected, consequently, it is obligatory for improvement.

It is now proven, that the difference between levels of customer satisfaction on two sides of the portal is caused by the initial focus and investment on the requester side. The logic of this primary decision is easily explained by prioritizing the number of requests that are received on the platform. After gaining the client and the desired number of the requests, the suppliers interested in the work with big clients are easier to reach.

Chapter 5

2 Result analysis of the 4 implementation of the framework for improvement of customer satisfaction

6 The following chapter is dedicated to describe how the framework validated in Chapter 3
and applied for the evaluation of current situation in the organization, can be used for an actual
8 improvement of customer experience.

10 Firstly will be defined the detected points of improvement from previous chapter will be
described. Secondly, basing on this outcome, will be described the wanted situation and results
characterized in a table together with a value of customer satisfaction needed to be achieved.

12 Thirdly, the taken actions regarding the improvement will be described and evaluated. The
evaluation will include the comparison regarding the desirable or ideal situation defined
14 previously in this chapter.

16 After made comparison of the achieved and desirable situation, the researcher will make a
conclusion of viability of applied changes and improvements.

5.1 Desirable level of customer satisfaction

18 After evaluation of the current level of customer satisfaction, it's been detected that both
levels of satisfaction on customer and on supplier side were acceptable and satisfying for two first
20 years of business development, but not high enough to continue the growth.

2 Taking into consideration the described governance mechanisms and specifics of the
platform work, there was reached the conclusion that continuing with two separated platform,
4 which are now connected only by one common page is not leading to the growth and can be once
again considered as a temporary solution.

6 Therefore there was a decision taken that both platforms should be joined into one with
exactly same features elaborated. By this change it is possible to reach the common level of
8 customer satisfaction on both sides and improve the work with platform, as well as a interaction
in between involved parts.

After the evaluation of the current situation the following improvement points were detected:

- 10 1. Reducing number of clicks made during the order creation and offer placement
- 12 2. Development of additional features for suppliers to improve their engagement
with a platform and increase its advantage
- 14 3. The “How are you satisfied with the service?” button for immediate measurement
of the satisfaction level at the moment, when service was just provided
- 16 4. The additional program of benefits for suppliers who participates in surveys and
interviews
- 18 5. Direct possibility for any client report the issue found on the platform with a
purpose of faster interaction with a Support Team.
- 20 6. Implementation of an automatic Chatbot with an answers or clarification for the
most common issues encountered, which are not linked to the platform work itself.
- 22 7. Update of the site with an access to trial version of the platform
- 24 8. Internal actions for higher security of a personal data of the users
- 26 9. Three languages variation of the platform available for suppliers
- 28 10. Reducing the time of response between validation of the offer and
confirmation of the supplier.
- 30 11. More user friendly and intuitive, therefore simpler for understanding,
interface

32 Taken into consideration all improvements mentioned above, the desirable customer
34 satisfaction value per element is described in table below, where the desirable *coefficient of*
36 *customer satisfaction* to be achieved is **8**.

Table 11 - The Desirable level of customer satisfaction

Critical Factor	Mechanism	Element	Description	Value
Quality, Security	Accessibility & control	Accessibility	Easy to find for suppliers and clients, site provides the information regarding the main objectives and general description together with an access to the platform trial version.	7
		Navigation	Direct access to the trial version of the platform	6
		Simplicity	As all features are made with an objective to be as simple and logical as possible	10
		Language	All three languages available equally for both supplier and customer. No small translation mistakes are detected. Platforms adapted for different markets.	7
		Memory	All made and responded requests are saved on the platform statistics and available for all the suppliers.	8
Quality	Governance structure	Personalization	The structure is not flexible and pre-determined.	1
		Page Load Speed	In all steps of the order creation, bidding and confirmation, the process takes up to 3 seconds without any stops.	9
		Intuition	The process of order creation, validation, reply on request and the bidding are intuitive and user-friendly, features of doubt are simplified or substituted. Easy4Pro team provides training sessions, and	8

Critical Factor	Mechanism	Element	Description	Value
			needed explanations to all clients. User manuals are sent during new user creation automatically.	
	External Relationships	Moment of Truth	Each client has the trial period dedicated to the test of the platform. 95% of the clients continue with a platform after trial period.	10
Price	Pricing	Real-Time Action	All experience on the platform are happening in real time and in direct interaction with involved parts.	9
Security, Atmosphere	Resources & documentation	Convenience	All the information available on the platform is a part of NDA and the law of the information security. Internal access to the customer/supplier information is limited.	9
Atmosphere, Quality	Trust & perceived risk	Logic	Order requester has a perfect and full overview on a bidding process and well as market situation. The applied color system helps the supplier evaluate the given offer according to the market.	9
		Community	70% of the clients after trial period are switching to constant Easy4Pro use instead of other ways, giving to Easy4Pro exclusivity. Easy4Pro is providing the support to each user and creating the viable relationships with suppliers, the concurrent tenseness is reduced.	10

Critical Factor	Mechanism	Element	Description	Value
Quality, Security	Accessibility & control	Deliverability	Each request is coming with described time limits to be done, therefore the deliverability is not a	

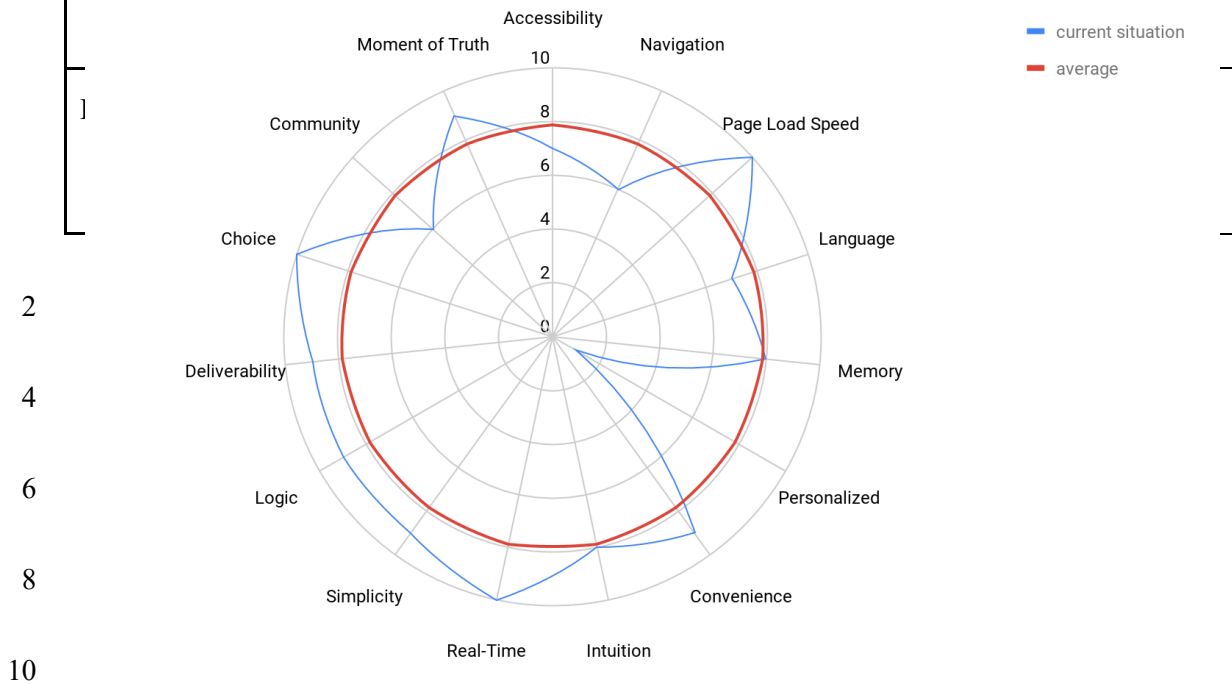


Figura 16 - The desired level of customer satisfaction

5.2 Achieved level of customer satisfaction

It goes without saying, that actions regarding the all improvement points detected above could take quite a long time to be implemented. However, till June 2019 the Easy4pro team managed to make quite big progress regarding it. Therefore, two tables can be compared and the researcher can make the evaluation of the reached results comparing to the desired ones.

The evaluation of the actions taken is presented in the table 10 below, where elements with a same value as on previous table 9 are considered as completed is described in column "Result" as "Accomplished", the element which are still in process of improvement as described as "In process" and the ones that impossible to change – "Not possible to change".

Table 12 - Reached situation regarding customer satisfaction on July 2019

Critical Factor	Mechanism	Element	Description	Value	Result
Quality, Security	Accessibility & control	Accessibility	Site provides the information regarding the main objectives and general description together with an access to the platform trial version. The job regarding the site accessibility is in process.	4	In process
		Navigation	Limited access to the trial version of the platform	5	In process
		Simplicity	As all features are made with an objective to be as simple and logical as possible.	9	In process
		Language	On the new version of the platform, three languages are available, however there are still some work to be done to reach the full adaptation of the platform to the local needs.	6	In process
		Memory	All made and responded requests are saved on the platform statistics and available for all the suppliers.	8	Accomplished
Quality	Governance structure	Personalization	The structure is not flexible and pre-determined.	1	Not possible to change

		Page Load Speed	In all steps of the order creation, bidding and confirmation, the process takes up to 3 seconds, there are no significant stops detected as any of them are solved within 20 seconds.	8	In process
		Intuition	The process of order creation, validation, reply on request and the bidding are intuitive and user-friendly, features of doubt are simplified or substituted. Easy4Pro team provides training sessions, and needed explanations to all clients. The feature of an automatic sending of the user manuals are under constructions.	7	In process
	External Relationships	Moment of Truth	Each client has the trial period dedicated to the test of the platform. 95% of the clients continue with a platform after trial period.	10	Accomplished
Price	Pricing	Real-Time Action	All experience on the platform are happening in real time and in direct interaction with involved parts	9	Accomplished

Security, Atmosphere	Resources & documentation	Convenience	All the information available on the platform is a part of NDA and the law of the information security (General Data Protection Regulation). Half of the team have Internal access to the customer/supplier information due to number of people working in the organization and the variety of functions executed by each of the involved elements.	9	Accomplished
Atmosphere, Quality	Trust & perceived risk	Logic	Order requester has perfect and full overview on a bidding process and well as market situation. The applied color system helps the supplier evaluate the given offer according to the market.	9	Accomplished
		Community	70% of the clients after trial period are switching to constant Easy4Pro use instead of other ways, giving to Easy4Pro exclusivity. Easy4Pro is providing the support to each user and creating the viable relationships with suppliers, the concurrent tenseness is reduced.	10	Accomplished

Quality, Security	Accessibility & control	Deliverability	Each request is coming with described time limits to be done, therefore the deliverability is not a question. Exceptions are dedicated to the unpredicted external reasons.	6	Accomplished
Price	Pricing	Choice	All customers and supplier are confirming their willingness to work with each other.	9	Accomplished

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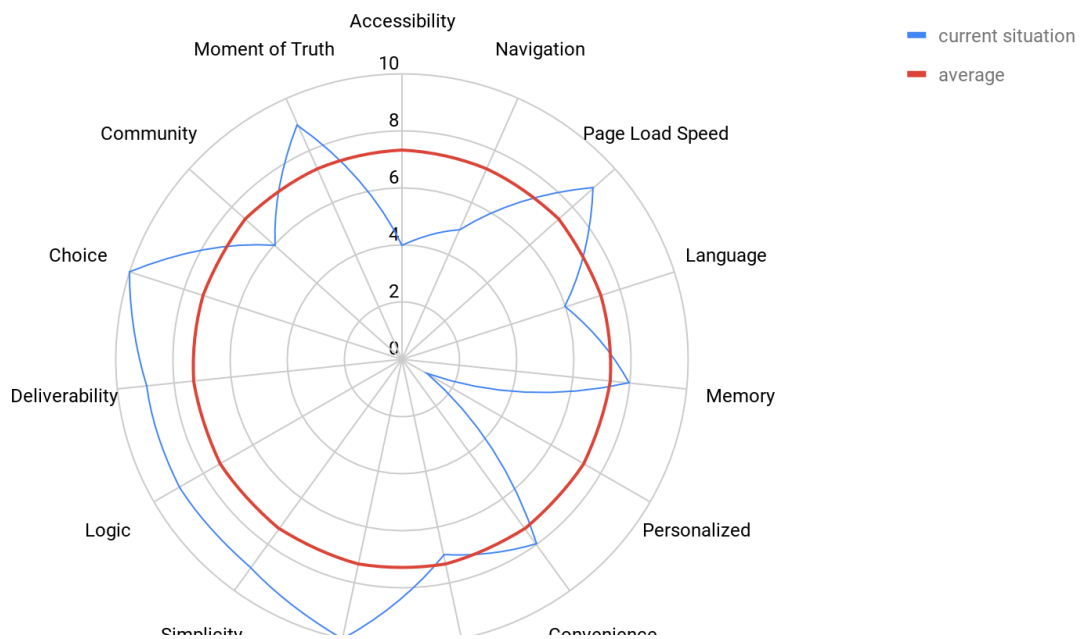


Figure 17 - The reached level of customer satisfaction

16

The reached *coefficient of customer satisfaction* is **7.3**. This result is considered as high and sufficient for the continuing growth.

18

The detected increase in compare with customer portal initial situation is for 0.6 points, while the increase in compare with supplier portal is for 1.8 points. Obviously most of the changes applied have a bigger effect for the supplier side, than on requestor side. However, this increase

20

2 on the supplier side is having a big positive effect on requestors' side as well. Due to the fact, that more and more suppliers is showing willingness to join the platform, the requesters have a bigger overview on a market and more offers of a solutions for urgent transportations.

Chapter 6

2 Conclusion and future work

4 A lack of customer satisfaction modelling and the nonexistence of a well-defined
6 questionnaire could have a negative effect on the development of sustainable and recurring
8 business. For that reason organizations could definitely take advantage of a proven systematic
10 customer satisfaction process. The challenge for organizations is to implement and secure a
12 standardized customer satisfaction process across their class of markets and geographic markets
14 (countries). Customer satisfaction is addressed as a strategic business development tool.
Ultimately it will lead to more loyal customers and more profitable business.

10 With the exploratory case study carried out in chapter 1, the researcher expands the
12 theoretical viability of the designed framework to a practical scenario of an improvement of the
14 customer satisfaction level with the company. After accessing the context, evaluating the model
and redefining the artifact, the researcher concludes this research by reaching the objectives
proposed in 1.2 and answering the research questions asked in 1.3.

Revisiting the research objectives and questions:

16 - *Which factors are critical factors that impact on the customer satisfaction level?*

18 After the literature review were detected four critical factors that are forming the customer
satisfaction level and cause the biggest impact on its improvement.

20 - *How to analyze the factors of customer satisfaction to improve customer satisfaction level
in the context of multi-sided platforms?*

22 Inside the environment of the multi-sided platforms, there were detected mechanisms that
24 are influencing on the level of customer satisfaction together with the elements of it. To define
the existing level of customer satisfaction and the ways to improve it was developed the
Evaluation List based on the business model, which helps to detect the fails and gains in the
service available.

26 The Model was evaluated with the real case Easy4Pro platform, where after the evaluation
of the current situation was possible also to detect the improvement points. The results obtained

2 from the evaluation list will be used for the long run customer satisfaction improvement, due to
the fact that the immediate implementation of the all the improvements was not technically
possible.

4 The defined technique can be applied more than once for the same service to help detect
possible improvements of the customer's level of satisfaction, as the service is changing. Future
6 work will request bigger changes, comparing to the current situation. Due to this fact the
elaborated model can be generalized with the purpose of the wide application.

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2 ANNEX A – Support

Literature review synthesis (listed by year of publication)

N	Title	Author and Year of Publication	Key concepts and researcher's remarks	Future Research
1	A Trust-based Framework for Internet Word of Mouth Effect in B2C Environment	(Wei Zhuang, Qingfeng Zeng, 2018)	<p><i>Internet Word Of Mouth, Trust, SOR model</i></p> <p>This study constructs a trust mechanism model of Internet Word Of Mouth effect, which shows that the professionalism of communicators, online relationship strength.</p>	Customer value and willingness to recommend the multi-sided platforms to others (colleagues, firms, partners). Maintenance of customer relations and engagement.
2	Collaborative consumption: the role of familiarity and trust among Millennials	(Christoph Mittendorf, 2018)	<p><i>Trust, Familiarity, Collaborative consumption, Disposition to trust, Intermediary framework</i></p> <p>This paper aims to focus on online hospitality platforms in the collaborative consumption environment.</p>	The trust-building measures to be adopted to increase the level of the trust of its users.
3	Maximizing Strategic Alliances in the Multi-Sided Platform Firms	(Adhi Setyo Santos, Sari Wahyuni, 2018)	<p><i>The multi-sided platform, strategic alliances, resource-based view, network effects, platform strategy, innovation, technological change, sharing economy</i></p>	Maintenance of alliances between platform members and MSP.

References

			This article aims at mapping the strategic alliance literature relevant to the MSP context	
4	Customer Experience Strategy Turned into Hands-On Actions Through a Design Approach	(Jonathan Schanz, Christine De Lille, 2018)	<p><i>Customer experience (CX), strategy, internal change, design approach</i></p> <p>The paper addresses the question of how a design approach can facilitate a company's change process from the abstract strategic direction to a way of working in practice.</p>	Defining which approach would be most useful for MSP to improve customer journey.
5	Engagement, satisfaction and customer behaviour-based CRM performance	(Vittoria Marino, Letizia Lo Presti, 2017)	<p><i>Customer satisfaction, Customer engagement, Customer relationship management performance, Mobile instant messaging</i></p> <p>The paper verifies which aspects of consumer engagement generate satisfaction and optimize customer relationship management.</p>	Forms of interactive consumer experience for MSP
6	The role of suppliers in establishing buyer-supplier relationship towards better supplier performance	(Keng Lin Soh, K. Jayaraman, Teoh Su Yen, S. Kiumarsi, 2016)	<p><i>Buyer-supplier relationship; BSR; supplier engagement; SE; supplier infrastructure; SI; supplier quality; SQ; supplier commitment; SC; supplier performance; SP.</i></p> <p>This study is examining the impacts of the buyer-supplier relationship in</p>	-

References

			its mediating role to supplier performance.	
7	Supplier development and buyer-supplier relationship strategies – a literature review	(Ilkka Sillanpää, Khuram Shahzad, Elina Sillanpää, 2015)	<p><i>Supplier management; supply chain integration; buyer-supplier relationship; supply chain management; supplier development; procurement management.</i></p> <p>This paper provides a framework for analysing the current understanding of supplier development strategies, its impact on performance, and buyer-supplier relationship approaches.</p>	Defining the strategy for supplier development
8	The Role of Mutual Trust in Building Members' Loyalty to a C2C Platform Provider	(Jin Chen, Cheng Zhang, Yunjie Xu, 2015)	<p><i>C2C e-commerce, loyalty, mutual trust, platform providers, social interaction, trust, trust in e-commerce.</i></p> <p>This paper differentiates two types of trust in C2C e-commerce—mutual trust among members and members' trust in the platform provider—and then proposes that trust in the platform provider mediates the relation between mutual trust and loyalty to the platform provider.</p>	-
9	The impact of supplier selection and buyer-supplier engagement on the relationship	(Vijay R. Kannan, Keah Choon Tan, 2006)	<p><i>Buyer-seller relationships, Suppliers, Business performance</i></p> <p>The paper provides empirical evidence of the impact of cultivating</p>	-

References

	and firm performance		buyer-supplier relationships on relationship success, and how this directly impacts business performance.	
10	Information Transparency of Business-to-Business Electronic Markets: A Game-Theoretic Analysis	(Kevin Zhu, 2004)	<p><i>Information economics, information transparency, the economics of electronic markets, online exchange, asymmetric information, game theory, information transparency hypothesis</i></p> <p>This study focuses on the informational effects of business-to-business (B-to-B) exchanges.</p>	Information transparency as a benefit to improve customer experience.

2 Table 2- Literature review synthesis

Article	Customer satisfaction	Multi-sided platforms	Supplier	Trust
A Trust-based Framework for Internet Word of Mouth Effect in B2C Environment				X
Collaborative consumption: the role of familiarity and trust among Millennials	X			X
Maximizing Strategic Alliances in the Multi-Sided Platform Firms	X	X	X	
Customer Experience Strategy Turned into Hands-On Actions Through a Design Approach	X			
Engagement, satisfaction and customer behaviour-based CRM performance	X		X	X

References

The role of suppliers in establishing buyer-supplier relationship towards better supplier performance	X		X	X
Supplier development and buyer-supplier relationship strategies	X		X	
The Role of Mutual Trust in Building Members' Loyalty to a C2C Platform Provider	X		X	X
The impact of supplier selection and buyer-supplier engagement on the relationship and firm performance	X		X	
Information Transparency of Business-to-Business Electronic Markets: A Game-Theoretic Analysis		X		X