

Quality dimensions of eLearning services: Case of Datafisher Oy

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<p>Quality management is crucial in relation to both manufactured goods and services. However, quality measurement implies some challenges for organizations due to uncertainty in the definition of quality. In the case of services, quality management is further complicated due to the complex nature of services in comparison to goods.</p> <p>This thesis that commissioned by Datafisher Oy aims at defining the quality of eLearning services. The quality perceptions of business customers are the focus of attention. The theoretical part discusses two models of service quality perception and their interrelation. The background is used to outline the research model for the empirical study and introduce a dimensional approach to service quality measurement. The empirical part, implemented by means of both qualitative and quantitative research methods, allowed determining the quality dimensions of eLearning services and collecting data about the importance of these quality categories as perceived by business customers.</p> <p>The research findings provided evidence for the pertinence of a dimensional approach to the quality measurement of eLearning services. However, some distinctive characteristics of the services studied were determined with regard to their quality dimensions. Furthermore, the assumptions provided in literature about the paramount importance of service reliability and the low importance of service tangibles gained practical proof in the case of eLearning services.</p> <p>The research results were found valuable for Datafisher Oy, which can benefit from the comprehensive understanding of the quality perceptions experienced by its business customers in relation to eLearning services. Moreover, the whole eLearning service industry might capitalize on the research outcomes by applying the present model of the quality dimensions of eLearning services.</p>	
Keywords eLearning, service quality, service quality dimension, Perceived Service Quality model, SERVPERF	

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1 Introduction

The chapter discusses the importance of quality management to satisfy customers and the challenges that the suppliers of eLearning services experience today. Furthermore, the main trends in the Finnish market of eLearning services are determined. Also the case company is introduced in the chapter. Thereafter, the topic demarcation is presented and the research problem and investigative questions are stated in the chapter. Moreover, the research benefits are briefly discussed and the list of key definitions is included.

1.1 Background to the study

Nowadays, companies suggest a comprehensive range of products and services to delight customers. Organizations continuously develop their offering to respond to buyers' requirements and needs better. Though, the expectations about the quality, price and delivery terms, which are the fundamentals of customer satisfaction, should be met to please consumers completely. Among these three factors, the quality has the most influential and long-lasting effect on the customers' perception of a consumed service or product. (Hoyle 2007, 9-10.) Therefore, organizations should develop and sustain a required level of the quality of their products and services to approach new clients, develop the established customer relationships and guarantee the repeated sales. However, quality is a complex concept that can be defined diversely by different consumers and in application to different products or services. In this regard, a dimensional approach to quality measurement meaning generalization about the individuals' interpretations of quality allows organizing a structured quality management process.

The continuous technology development occurring in the recent decades is accompanied by rapid changes in customer behaviour. The growing computer literacy of consumers and their acknowledgment of the latest technologies force organizations to reconsider the out-dated forms of doing business and constantly update their product and service portfolio in accordance with the skills and knowledge of a contemporary customer. eLearning industry is an example of the successful transformation implemented by combining traditional learning techniques with the resources of information

and communications technology. On the one hand, this change has simplified and streamlined educational process and thereafter has benefited customers with regard to the time and money they spend on training purposes. However, on the other hand, the change in the forms of delivery learning outcomes has complicated quality management process. Thus, currently, the providers of eLearning services face a challenge to deliver efficient training outcomes and pleasurable service process by being a quality-oriented organization. At the same time, suppliers should follow market trends to ensure consumers' innovative and exciting learning experience. Thereby an understanding of quality management principles and its peculiarities with regard to eLearning services is a determinant of customer satisfaction along with technology expertise of suppliers.

1.2 Case company

The section starts with the explanation of “eLearning” term. Thereafter, a short overview of eLearning industry in Finland is made. In addition, the case company is presented while the main focus is made on the organization's service portfolio and customer groups.

1.2.1 eLearning market in Finland

Moeng (2004) defines eLearning as a change in the way organizations and individuals obtain new skills and receive knowledge by the means of innovative technologies and learning models. The definition emphasizes the role of technology and determines that acquiring skills and knowledge is a final target of eLearning application. This interpretation of eLearning term is similar to the definition applied by Datafisher Oy: “eLearning is the use of technology to enable scalable transfer of skills and knowledge” (Datafisher 2012). In the present research, the terms “e-course”, “e-training” and “eLearning” are used as interchangeable.

Statistics on eLearning market in Finland are quite limited. In 2005, about 160-170 Finnish companies, predominantly SMEs, offered their eLearning solutions. At that time, Finnish providers were already actively exporting eLearning services, and some were even involved in international projects. (Vainio et al. 2005.) The recent advance-

ments in the field of digital education are communicated in the results of the survey conducted by Tekes, Finpro, the Finnish Cluster Programme for Digital Content and the Finnish eLearning Centre in 2010. The survey indicated that the number of service providers in the Finnish eLearning market increased to 290 over five years. Though, the majority of these organizations were still SMEs operating in the industry for less than five years and serving customers mainly in the European market. (Laurea University of Applied Sciences 2011, 4.)

The core consumer groups of eLearning services in Finland are companies and educational institutions. Business customers in Finland consume eLearning services for the purpose of “personnel, product, partner, customer, distributor and change management training”. The popularity of these services in a business sector is justified by their time-, money- and expertise-sharing efficiency, a possibility to utilize interactive training tools and techniques and to customize content and quality. (Vainio et al. 2005.)

1.2.2 Datafisher Oy

Datafisher Oy (later DF) has more than a 10-year presence in the Finnish market. It was launched as a technology-oriented organization. Later on, technology expertise was combined with competences in training and coaching. It allowed the company developing a set of services and tools that support processes of organizational change, which the business customers of DF have been continuously experiencing. (Datafisher 2012.)

The current service portfolio of DF leaded by eLearning as a service with the highest demand includes the following offering (Datafisher 2012):

- Change Management Support – support in all stages of organizational change;
- Internal Communication – communication solutions for internal customers;
- eLearning – fast and efficient delivery of training solutions;
- Collaboration Platforms – collaboration platforms using social media tools;
- Video Production – creation an influential message addressed to the target groups of organizations.

The years of experience let DF develop a diverse base of the regular customers demonstrating their loyalty to the company and benefiting from a systematic use of the trainings and other solutions developed by DF. Moreover, the company has been continuously looking for opportunities to penetrate new markets and gain clients from a wide range of business sectors. Currently, DF serves primarily business customers, though a public segment including the Finnish Government is another important customer group for the firm.

DF eLearning services cover such training areas as deployment of a new product, change management, training of new personnel etc. The most recent and topical field of eLearning application among DF customers is personnel training on sustainability issues and corporate Code of Conduct. It reflects a growing concern about these issues in the corporate world. The eLearning service package of DF includes the development of training concept, content design, visual and technical execution, also roll-out, technical support and management of eLearning programs etc. (Datafisher 2012).

Considering the business customer segment, it is worth noting that the customers of DF are internationally operating organizations. With respect to eLearning services, it means that DF satisfies its clientele's training needs at global scale. It is possible, for instance, due to offering a so-called "localization" of the training modules that DF develops. The localization service includes translation of eLearning material and its adaptation to the context of a particular learning environment.

1.3 Thesis topic demarcation

The thesis process began with a discussion with the commissioning party about the areas of the company's research interests. Ultimately, a general research area was determined as quality assurance in a service business. Though, being quite broad, it was narrowed down to the study of service quality dimensions. Then, eLearning services provided by the case company have been chosen as a research focus. Moreover, it was found unfeasible to study service quality perceptions of all the customer groups the company serves. Thus, the perceptions of only business customers were investigated.

1.4 Purpose of the study

The purpose of the thesis is to explore how the customers of Datafisher Oy define the service quality. The research focus is made on eLearning services delivered by the company to its business customers. Thereafter, the **research problem** was defined as following: **What quality dimensions do the business customers of Datafisher Oy use to evaluate the quality of eLearning services?**

To start with, literature review is needed with regard to the topic of quality measurement in a service sector. This is to be followed by application of the theoretical background gathered to the case of Datafisher's eLearning services. Finally, conclusions are to be made and recommendations are to be developed about the use of research finding to manage the quality of Datafisher's eLearning services.

Keeping in mind the described logic of the study, the following **investigative questions** were formulated in relation to the stated research problem:

1. What is the service quality?
2. What are the quality dimensions in a service business?
3. How do the business customers of Datafisher Oy define the quality of eLearning services?
4. What quality dimensions of eLearning services do the business customers of Datafisher Oy consider to be the most important?
5. How can Datafisher Oy use the research findings to manage the quality of its eLearning services?

The **overlay matrix** (Attachment 1) explains how the formulated investigative questions are covered throughout the research report and correlate with the contents of the theoretical and empirical parts of the thesis.

1.5 Research benefits to stakeholders

The conducted research is found to be beneficial for the commissioning company and its stakeholders, likewise for the whole eLearning service industry. The latter is true because no studies were found about the quality of eLearning services that would suggest an elaborated model of the quality dimensions of the services in question. With respect to the case company, research value is proved by the fact that eLearning services have a predominant share in the company's service offering in a demand wise. Consequently, the company might have special concerns about developing the quality of its eLearning services to generate and maintain sales growth and steady profits. Another benefit of the research is acquiring the knowledge about the factors or service components that influence the consumers' perception of the quality of eLearning services and could be potentially the reasons for customer retention or loss. Presumably, the research findings could provide grounds for quality improvement and further development in the case company. Additionally, the results of the present study could help educate the internal customers of the organization about the principles of quality management. Indeed, the employees could gain a better understanding how their performance with regard to the company's eLearning services affect service outcomes and customer satisfaction in general. Furthermore, the consumers of eLearning services are supposed to benefit from the improved service quality.

1.6 Structure of the thesis

The thesis process starts with introduction where the study subject and research benefits are briefly discussed and the research problem and objectives are stated. In chapter two, the case company is described while the focus is made on the company's service portfolio and customer groups. Due to little data is available about the market of eLearning services in Finland, only a short overview of it is made in the chapter.

Chapter three providing a list of the main definitions is followed by the theoretical part of the research - chapter four. This section explains the specific features of services being opposite in their nature to goods. A definition of service quality is also suggested. Additionally, the chapter presents an idea of dimensional approach to service quality

measurement and introduces two quality measurement tools of SERVEQUAL and SERVPERF. In the end, a research framework is presented.

The research methodology is described in chapter five. The chapter stresses the application of both qualitative and quantitative research approaches and discusses the used sources of secondary and primary data. The methods of primary data collection, in-depth interview and survey, are separately discussed to communicate the research objectives of each method and describe the procedures held. The sampling grounds of the primary data collection methods are justified in a separate subsection. Moreover, the validity and reliability of research results are explained in the chapter.

Chapter six presents the results of in-depth interviews. The chapter ends with conclusions about the quality dimensions of eLearning services. Based on the desktop research results, the theoretical framework drafted in chapter four is adjusted.

Chapter seven introduces the survey results. The most important quality dimensions of eLearning services are indicated and discussed. Besides, the correlation between service supplier experience and the importance perception of the quality dimensions of eLearning services is determined.

Finally, in chapter eight, conclusions are made about the research findings, which managerial implications are later discussed. Moreover, a few directions for the future research are proposed.

1.7 Definitions

The section introduces definitions of the key concepts that the research is built on. The listed terms are essential to understand the studied phenomenon and analysed theories.

eLearning: “the use of technology to enable scalable transfer of skills and knowledge” (Datafisher 2012).

Functional quality (quality of service process): a quality dimension describing the *way* in which the outcome of the service process is delivered (Grönroos 2000, 63-66).

Quality dimensions: the categories of service characteristics that influence perception of service quality and are considered to be the indicators of service quality (Edvardsson 1994, 84; Zeithaml et al. 1990, 20).

Berry's model of service quality dimensions (Farner et al. 2001, 355; Grönroos 2000, 74-75; Zeithaml et al. 1990, 26):

- **Reliability:** accurate service delivery in accordance with the set up requirements.
- **Responsiveness:** readiness and willingness of employees to provide the service.
- **Assurance:** the employees' professional behaviour and competency that secure the customers' trust and confidence about receiving the service.
- **Empathy:** delivery of the personalized service.
- **Tangibles:** physical evidences of the service like facilities, used material and equipment, employees' appearance etc.

Service: "a series of processes, where production and consumption cannot be totally separated, and where the customer often actively participates in the production process" (Grönroos 2000, 62).

Service quality: the relationship between expectations of the service and perception of the received service (Edvardsson et al. 1994, 1-2; Grönroos 1990, 36; Zeithaml 1990, 19).

SERVQUAL: an instrument of service quality measurement that is based on the disconfirmation model and aims to measure the difference between service perceptions and service expectations (Zisis et al. 2009, 26).

SERVPERF: an instrument of service quality measurement using the quality attributes approach to measure the customers' service experiences only (Jain & Gupta 2004, 27-29).

Perceived service quality model: a framework explaining how customers perceive characteristics of a service (Grönroos 2000, 62-68).

Technical quality (quality of end product): a quality dimension describing *what* is delivered to the customer as an outcome of the service process (Grönroos 2000, 63-66).

2 Service quality measurement

The chapter discusses the specificity of services as opposite to goods and introduces the definition of services. Then, a dimensional approach to service quality measurement and two instruments of service quality measurement are presented.

2.1 Nature of a service business

Services are different from goods in the way they are produced and in the nature of customer-supplier relationships. Moreover, service quality is evaluated differently than the quality of goods. The subsections of this chapter discuss specific features of services and suggest a definition of service quality.

2.1.1 Distinguish characteristics of services

“Services are a series of processes, where production and consumption cannot be totally separated, and where the customer often actively participates in the production process” (Grönroos 2000, 62). The definition of services given by Grönroos summarizes the characteristics of services discussed in literature (Fitzsimmons & Fitzsimmons 1994, 26-35; Grönroos 1990, 28-30; Haywood-Farmer in Graham 1990, 19-20; Mudie & Cottman 1993, 6-11 etc.):

1. Intangibility. The intangibility of services is associated with the problem of describing a service and its quality in concrete terms by a service provider. Moreover, customers experience a difficulty to formulate their expectations about the service they intend to consume.
2. Inseparability. The service inseparability relates to the fact that service production and consumption happen mainly simultaneously, so that service provider and service itself are perceived inseparably from each other. Accordingly, the pre-production quality control of services becomes impossible.
3. Customer participation. Customers are actively involved in the service production. In fact, they are the “inputs” of this process (Fitzsimmons and Fitzsimmons 1994, 26). This diminishes an opportunity to manage the quality of ser-

vices because customers' contribution to the service process is neither controllable nor predictable.

4. Heterogeneity. The service heterogeneity means variability of the same service from one provider to another and variations in the expectations that different customers have in relation to the same service. Moreover, the rationales used by consumers to evaluate service quality are a subject to change over the time.

Referring to the above-described characteristics of services, it can be concluded that services are more complex than goods from the quality management point of view. Moreover, in the case of services both service outcome and service process are the subject to measurement and control. (Graham 1990, 19; Parasuraman et. al. 1985, 42.) Additionally, the service characteristics are interrelated in their nature (Fitzsimmons & Fitzsimmons 1994, 26).

2.1.2 Service quality construct

Since the quality is a determinant of customer satisfaction (Hoyle 2007, 9-10), service quality management is an important concern of a service organization. The internationally applied quality standards of ISO 9000:2000 define the quality as “the degree to which a set of inherent characteristics fulfils a need or expectation that is stated, generally implied and obligatory” (Hoyle 2007, 10). The definition is applicable to both goods and services. It defines the quality as conformity of the performed quality to the quality claimed by customers or the quality stated by an organization based on the customers' needs, requirements and expectations. In addition, the definition emphasises a descriptive nature of quality because it is described in terms of the desirable features of a consumed product or service. (Hoyle 2007, 10-11.)

In the present study, the author refers to the commonly used definition of service quality described as the relationship between service expectations and service perceptions (Edvardsson et al. 1994, 1-2; Grönroos 1990, 36; Zeithaml 1990, 19). This definition is conceptualized in the Perceived Service Quality model (PSQM) of Grönroos (2000, 62-68), where the term of “total perceived quality” is introduced (later “service quality”) (figure 1). PSQM suggests the idea that customers assess service quality by

comparing their service expectations (expected quality) with their service perceptions (experienced quality). Thereby, according to Grönroos (2000, 62-63), service quality is a gap between the expected and experienced levels of quality.

Arising from the definition, service quality is a multi-attribute concept because the description of quality might differ from customer to customer, and the individuals' expectations and perceptions of services might also vary. Thereafter, the knowledge of the common patterns in the quality perception of a particular service is required to enhance customer relationships and improve the quality performance of an organization. (Grönroos 2000, 62-63.)

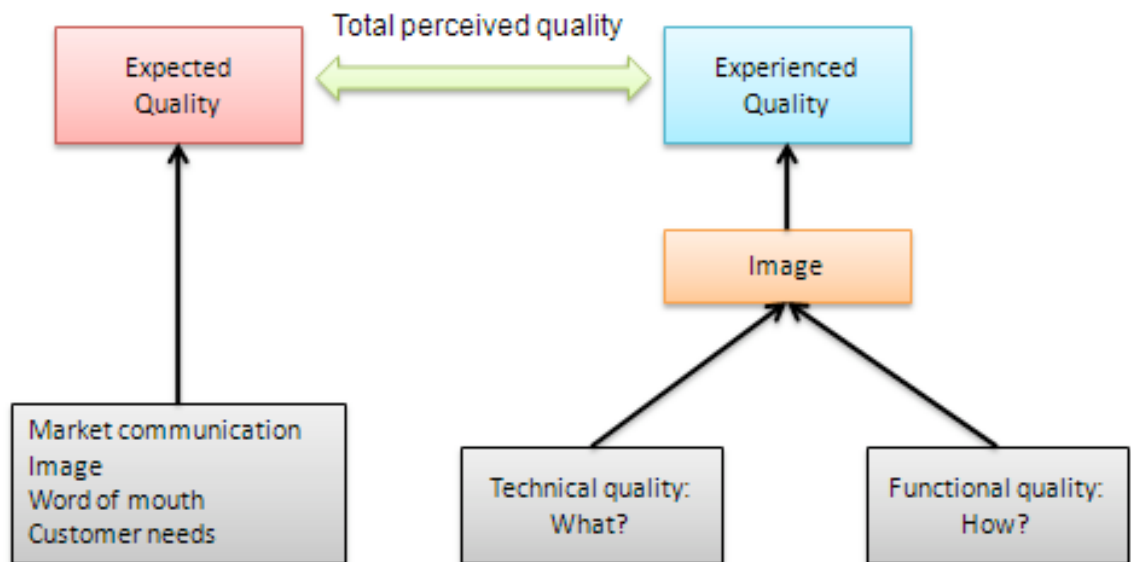


Figure 1. Perceived Service Quality model (Grönroos 2000, 67)

2.2 Dimensional approach to service quality measurement

Organizations aimed at their service performance improvement should admit the need for the systematic measurement and monitoring of their service quality. Service quality is the subjective category defined diversely not only by different customers, but also across different types of services. Thereby, service quality should be defined, firstly, with regard to the customers' quality perceptions and, secondly, in application to a particular service.

2.2.1 Service quality dimensions

Throughout the decades researchers have been making attempts to generalize about the service characteristics that influence the customers' perception of quality, thus, the characteristics that are considered to be the indicators of quality (Edvardsson 1994, 84). Literature research revealed the existence of a few classifications of service quality characteristics (Grönroos 2000, 63-66; Lehtinen, & Lehtinen 1983, 83; Zeithmal et al. 1990, 20 etc.). Most of the classifications define the categories of these characteristics as "the dimensions of service quality" meaning the "criteria used by customers in judging service quality" (Zeithmal et al. 1990, 20).

In the present research, the service quality dimensions offered by Berry and his colleagues (Zeithaml 1990, 20) and Grönroos (2000, 67) are considered to be the most valuable in application to the services studied. Both classifications describe the quality dimensions that are used by consumers to identify whether the received service is in conformity with the expected service, i.e. to compare service perceptions with service expectations (Grönroos 2000, 67).

Grönroos (2000, 63-66) defines two service quality dimensions: technical and functional. The technical dimension describes *what* is delivered to the customer as an outcome of the service process and is based on the non-interactive components of service. The functional dimension, in its turn, explains the way in which the outcome of the service process (*how*) is delivered and is associated with the interaction between customer and service provider. (Kunst & Lemmink 1996, 102.) Grönroos contends that both dimensions have impact on the perception of service quality while the functional quality dimension is relatively difficult to measure objectively (Graham 1990, 15). Grönroos also suggests that both technical and functional qualities are perceived through the "filter" of an organization's image that may have a distortive effect on the objective evaluation of quality by customers (Edvardsson 1994, 88-90; Grönroos 2000, 64-65). (Figure 1.)

Berry's study of service quality (Zeithaml et. al. 1990) based on Grönroos's PSQM represents a more detailed analysis of the service characteristics that customers consider when they assess the service quality. Started with ten dimensions, Berry's classification of quality determinants was narrowed down to five categories (Grönroos 2000, 74-75; Zeithaml et. al. 1990, 26):

1. Tangibles. The dimension incorporates physical evidences of the service like facilities, used material and equipment, employees' appearance etc.
2. Reliability. The dimension means that the service is to be delivered accurately and in accordance with the set up requirements.
3. Responsiveness. The dimension concerns the employees' readiness and willingness to provide the service.
4. Assurance. This dimension is addressed through the employees' professional behaviour and competency that secure the customers' trust and confidence about receiving the service.
5. Empathy. The empathy dimension presupposes that the personalized service is provided. It means that the needs of a particular customer are taken into consideration and his or her specific problems are solved by the means of the service delivered.

The quality dimensions outlined by Berry are the criteria of service quality measurement in Parasuraman's model of perceived service quality (figure 2). In this model service quality is defined as the difference between the perceived service and the expected service, both measured against five quality dimensions – reliability, responsiveness, assurance, empathy and tangibles (Fitzimmons & Fitzimmons, 1994, 190; Zeithaml et al. 1990, 23).

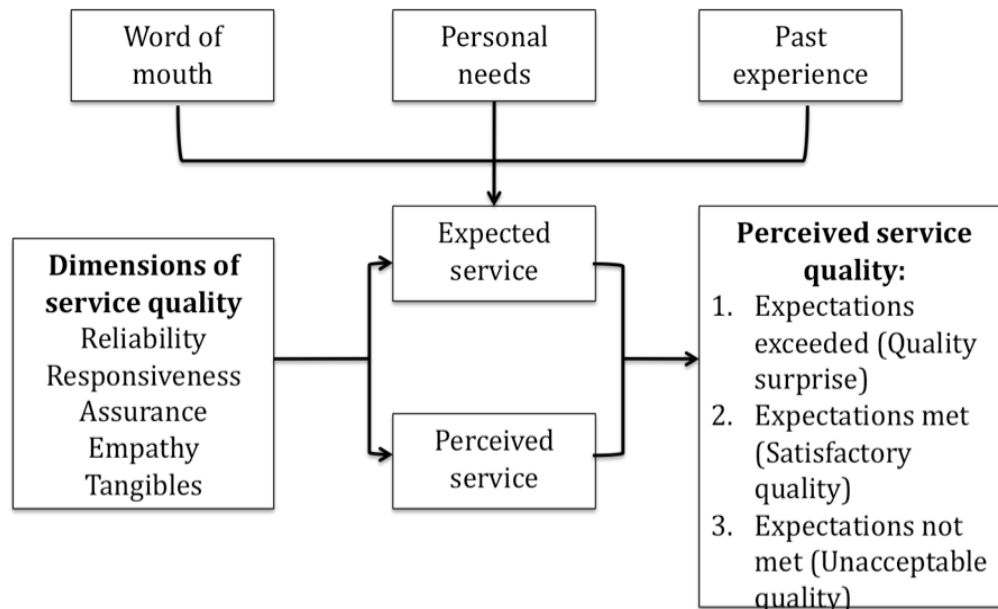


Figure 2. Parasuraman's model of perceived service quality (Fitzsimmons & Fitzsimmons 1994, 190; Zeithaml et al. 1990, 23)

According to Kang & James (2004, 267), the quality dimensions suggested by Berry relate to the functional quality dimension introduced by Grönroos, while the technical dimension, i.e. a service outcome, is omitted. However, Lapierre and Filiatrault (in Kunst & Lemmink 1996, 102) claim that the assurance and reliability dimensions in Berry's classification pertain to both the technical and functional dimensions of Grönroos's model. Moreover, both Parasuraman and Grönroos in their models of perceived service quality admit the impact of some external factors on the formation of service expectations. They are such factors as the customers' previous experience and individual needs along with marketing and word of mouth. (Figure 1 & 2.)

2.2.2 SERVQUAL vs. SERVPERF scale

To measure service quality, the majority of studies offer to apply a comparison approach with respect to the quality expectations and perceptions based on a set of the quality characteristics, i.e. the quality dimensions. A SERVQUAL framework developed by Berry, Zeithaml and Parasuraman is the most commonly used instrument of service quality measurement. (Grönroos 2000, 73.) It is constructed with reference to the service quality dimensions developed by Berry. In practice, SERVQUAL is a multiple-item measurement scale used in two steps: first, the customers' service expect-

tations are recorded, then, the customers' service perceptions are recorded. The customers express their opinions on the service studied by rating the paired expectation and perception statements on a seven-point scale ranged from strongly agree to strongly disagree. These statements (twenty-two for expectations and twenty-two for perceptions) correlate with Berry's service quality dimensions. Finally, the service quality is measured by calculating the difference between the ratings given to the paired statements. (Fitzimmons & Fitzimmons 1994, 191-194.) The number of the studies on service quality that used the SERVQUAL framework have indicated that the service reliability is the most important quality dimension, while the tangibles quality category is the least important (Zeithaml 1990, 28).

In spite of SERVQUAL is a well-acknowledged instrument of quality measurement with the proved credibility in many service businesses, it has been criticised by some researchers. The criticism related, firstly, to the problem of the multiple interpretations of service expectations (Vanniarajan & Anbazhagan 2007, 726) and, secondly, to the focus of SERVQUAL on the functional quality dimension only (Kang & James 2004, 268). As an alternative to the SERVQUAL scale, the SERVPERF instrument – service “performance only” measurement scale – was elaborated. The SERVPERF scale is an improved variation of SERVQUAL that measures only the performance component of service quality and uses twenty-two statements related to the quality perceptions. The superiority of SERVPERF was recognised by many researchers, and it has acquired a wide application. (Jain & Gupta 2004, 27-29.)

2.3 Theoretical framework of the thesis

The research framework of the present study (figure 3) illustrates how the examined theories and the models of the perceived service quality were integrated to decide on the research approach. Moreover, the drafted framework includes only those aspects of the reviewed service quality models that were used to conduct the study in relation to the stated investigative questions.

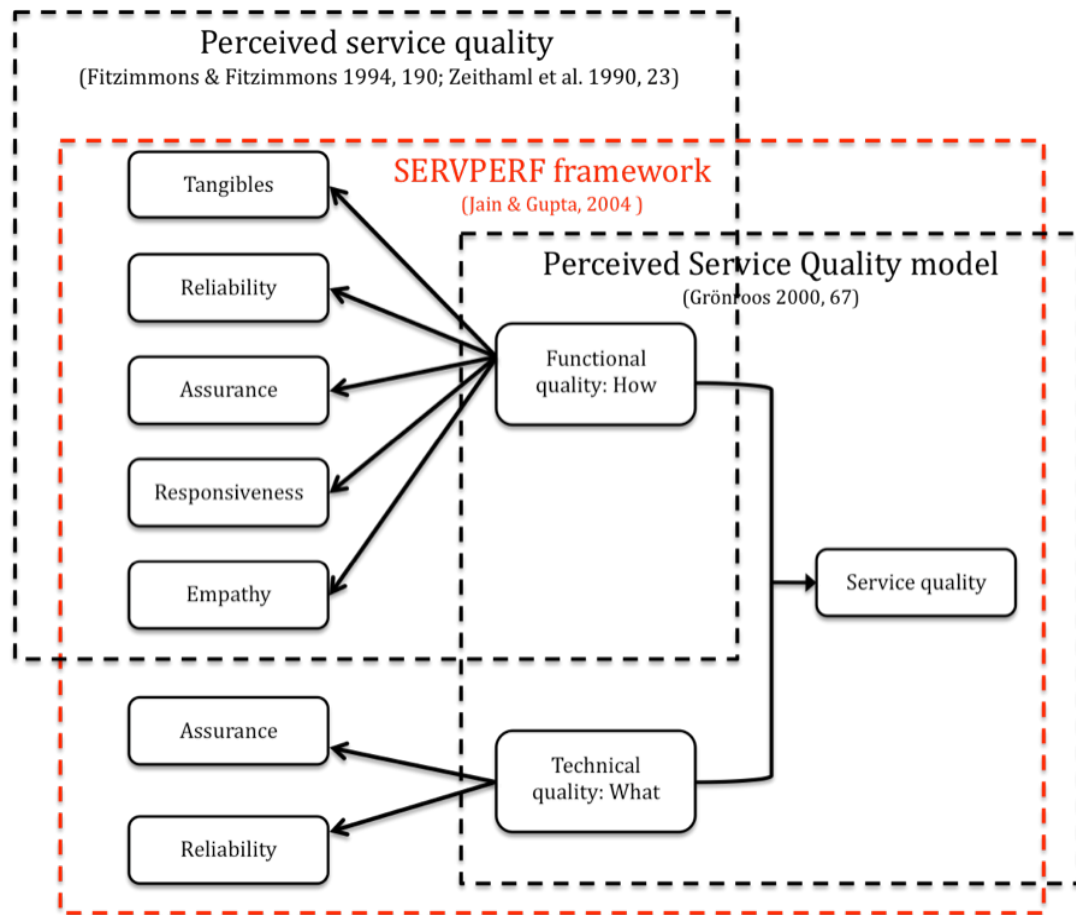


Figure 3. Research framework (Adapted from Kang & James 2004, 269)

On the one hand, the application of Berry's quality dimensions only could be considered adequate in the context of the present research. However, on the other hand, differentiation to the functional and technical quality dimensions offered by Grönroos was also found valuable for the present research. In addition, referring to Lapierre and Filiatrault (in Kunst & Lemmink 1996, 102), it was assumed that the technical dimension of Grönroos's model correlates with the assurance and reliability dimensions introduced by Berry. (Figure 3.)

Therefore, the combination of two models of the perceived service quality developed by Grönroos (2000, 67) (figure 1) and Parasuraman (figure 2, Zeithaml 1990, 23) is used. Considering the purpose of the present study, the service expectations component of the models was excluded as irrelevant to the primary research focus – defining the quality dimensions of the services in question. The research of the service perception only that according to the number of the researchers (Tan & Pawitra in Zisis 2009,

26) incorporates the quality expectations was considered sufficient. The image component of Grönroos's PSQM was also eliminated from the theoretical framework. Hence, the major concern of the study is to identify the relationship between the quality dimensions of Grönroos and Berry's classifications and to determine the relevance of these dimensions to the quality perception of eLearning services. (Figure 3.)

Moreover, it was found more reasonable to utilize the quality measurement approach of the SERVPERF instrument rather than SERVQUAL to conduct the study about the importance of the quality dimensions of eLearning services. Furthermore, there was indicated a need to modify the measurement scale of SERVPERF. The modification concerned the reconsideration of the quality perception statements originally used, and the change of the measurement scale to a five-point scale ranging from very unimportant to very important.

3 Research methodology

The present study utilizes the methods of both qualitative and quantitative research while the qualitative research preceded the quantitative study procedure. The chapter explains the reasons for combining two research methods. Furthermore, two groups of data sources, primary and secondary, their collection methods and sampling approach are presented in the chapter. Finally, the validity and reliability of the collected data are justified.

3.1 Qualitative and quantitative approach

The use of qualitative research methods in the initial stage of the study was predetermined by the lack of a quality management system or any data on the quality of eLearning services in the case company. Thus, first, the desktop research was done to acquire the theoretical background on the subject of service quality measurement. It was followed by application of another qualitative research method – in-depth interview. The in-depth interviews aimed to collect data about the definitions of quality given by DF customers with regard to eLearning services. The reference to the interviewees' previous experience of the services in question was made during the data collection. Based on the gathered opinions, the quality dimensions of eLearning services were formulated with reference to the service quality dimensions presented in the research framework (figure 3). In the second stage of the empirical research, the quantitative method of survey was applied to study how DF customers prioritize the quality dimensions of eLearning services while judging about the service quality. (Figure 4.)

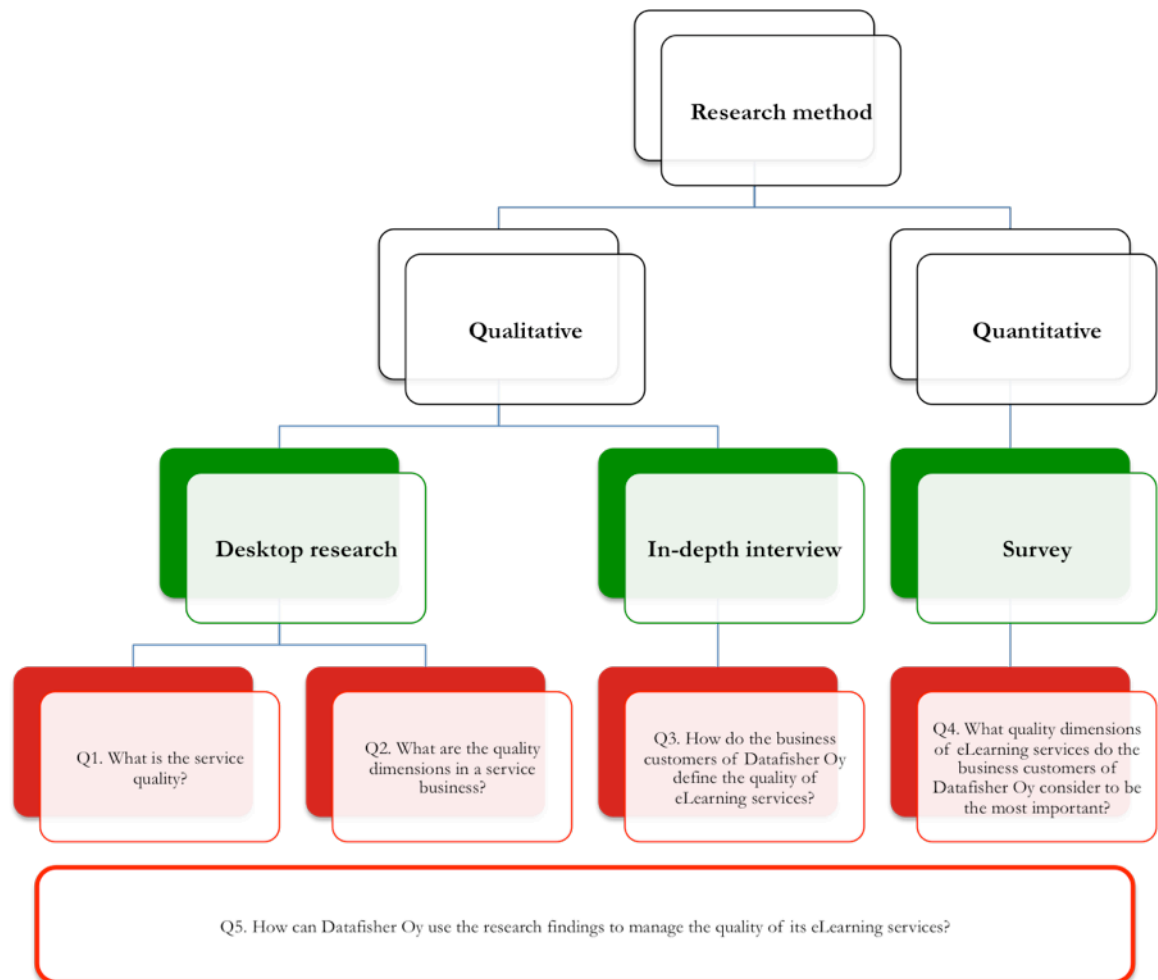


Figure 4. Research methodology

3.2 Data sources

The empirical study was predominantly based on the primary data sources such as in-depth interview and survey. It was explained by the fact that no recorded data on DF customers' quality perceptions of eLearning services were available. The primary data sources helped answer the investigative questions related to the case company and conclude on the research problem.

Along with the primary data sources, the secondary sources were used. The secondary sources – periodicals, researches and academic literature etc. – helped outline the theoretical framework of the research, to conclude about the quality dimensions applicable to eLearning services, and, finally, to lead the discussion on application of the studied theories and models to the case of DF eLearning services. The databases of academic literature of Aalto University and HAAGA-HELIA University of Applied Sciences

were used to collect the secondary data. The electronic databases such as Emerald and others were also utilised to search for the articles on the quality studies conducted recently in a variety of service businesses.

3.3 Primary data collection methods

This subsection introduces the methods of in-depth interview and survey that have been applied to collect the primary data. The data that were supposed to be gathered by the means of the named methods are described in brief.

3.3.1 In-depth interview

In-depth interviews (Ghauri & Gronhaug 2002, 101) were organized with six representatives of DF business customers to get insights about the clients' vision of the quality of eLearning services and, further on, to define the quality dimensions of the services studied. The application of the in-depth interview method was favoured due to a possibility to gain a more comprehensive understanding of the phenomenon under the study. The interviews were conducted with the help of the preliminary prepared open-ended questions grouped to three categories (attachment 3):

1. Overall experience of eLearning services,
2. Quality perception of eLearning services in general, and
3. Quality perception of DF eLearning services.

Thus, the interviews aimed to explore the interviewees' overall experience of eLearning services and the quality perceptions of the services studied.

3.3.2 Survey

The survey, or structured questionnaire (Ghauri & Gronhaug 2002, 92), was designed based on the data obtained from the in-depth interviews and the conclusions made on their basis. The survey pursued the objective to measure the importance of the quality dimensions of eLearning services, i.e. to define which quality dimensions have the greatest effect on the quality perception of the services in question. Additionally, it was

planned to analyse the relationship between the importance perception of the quality dimensions and the service supplier experience that the survey participants have had with regard to eLearning services.

3.4 Sampling

A non-probability sampling technique was used to conduct both the in-depth interviews and the survey. The case-based nature of the present research, its objectives and a limited number of the customers available for investigation, predetermined the selection of the sampling approach. (Saunders et al. 2009, 233.) Even though the non-probability sampling did not provide with the statistical conclusions about the population, the business customers of eLearning services in terms of the conducted study, but it allowed generalization about DF customers and reflection on the studied theories (Saunders et al. 2009, 213).

A purposive sampling (Silverman 2005, 129) was chosen in application to the in-depth interview method. This ensured that a diverse range of opinions on the research subject could be collected. A set of the characteristics related to both the interviewees and the organizations they represented was outlined to form the sample for the in-depth interviews. These characteristics are listed below:

- The companies operate in a business sector.
- The companies operate in different industries.
- The companies have either the repeated or sporadic experience of eLearning services.
- The purpose of eLearning application by the companies is to train their personnel which is employed both domestically and internationally.
- The companies pursue the different training purposes of eLearning application.
- The interviewees have been involved in the major stages of eLearning projects implemented by their companies and/or have fulfilled the key functions in these projects.

Ultimately, a heterogeneous variation of the purposive sampling strategy (Saunders et al. 2009, 240-241) was applied. It resulted in the selection of six interviewees – the representatives of DF business customers. Two of the interviewees represented the same customer and were interviewed together. Since they performed the different functions in the eLearning projects their organization has implemented, the different perspectives of the discussed topic were communicated. It let a more comprehensive overview of the experience that this business customer has had in relation to eLearning services.

In contrast to the in-depth interviews, survey sample was formed with the greater number of DF customers' representatives, 294 in total. The survey sample included the contact persons from the customer database of DF. Potentially, some of the respondents were considered to be invalid sources of data on the research subject because they could be the consumers of DF's services other than eLearning and had no experience of other providers of the services studied. In addition, the survey sample presumably included the individuals with different positions in their organizations and different roles in the eLearning projects they have participated in.

3.5 Data validity and reliability

Validity means that collected data represents the value in terms of the conducted study, i.e. the data provides valid grounds for making conclusions on a research topic (Saunders et al. 2009, 157). By validity is often meant sample representativeness (Mora 2011). The external validity of the conducted in-depth interviews, or the possibility of the results' generalization (Ghauri & Grønhaug 2002, 55), was ensured by forming the heterogeneous research sample based on the set up criteria discussed in the previous section of this chapter. The internal validity (Ghauri & Grønhaug 2002, 55), or the fact that the gathered opinions on service quality are trustful, was promoted by the interview procedure: leading questions were avoided while the interviewees' biased opinions were eliminated by asking about the experience of eLearning services in general and in relation to the case company. The validity of the interview questions was justified by the studied theory on service quality measurement. Accordingly, the reference to the customers' service perceptions and expectations was made with differentiation to the process and outcome components of eLearning services. Regarding the survey, its ex-

ternal validity was assured by the integration of the theoretical background and the results of in-depth interviews. Moreover, the internal validity of the survey, i.e. the guarantee that it measured what it had supposed to measure, was supported by the preliminary verification of the survey form by an expert from DF. In accordance with the comments received, the questionnaire was adjusted.

Reliability refers to the consistency of the obtained results, i.e. relates to the fact that the same data could be collected in application to the same study categories and sample (Saunders et al. 2009, 156). The results' reliability in the present study was assured, first of all, by the anonymity of respondents guaranteed to the research participants. With regard to the in-depth interviews, it let the interviewees feel confident about sharing their personal experience of DF eLearning services by expressing both positive and negative feedback on the services experienced. Concerning the survey, the statements that were to be rated on the importance scale did not refer to a particular service provider, but required the respondents' overall opinion on the certain aspects of eLearning services. Obviously, it allowed a more objective judgment about the issues questioned in the survey. Moreover, the reliability of the in-depth interviews' results was guaranteed by applying the standardized interview procedure. In practice, it was realized by using the predefined sequence of the questions worded and asked in a similar way during each interview. Furthermore, the audio records of the interviews helped avoid a misinterpretation of the opinions gathered. Regarding the questionnaire, questioning about eLearning end product and service process separately, the sequence of the statements formulated under each service quality dimension and including only one issue to judge about into the statements etc. are the factors that contributed to the understanding by the survey participants what they were asked about and, thereafter, increased credibility of the received results.

4 In-depth interview results and discussion

The chapter presents the data that have been gathered during the in-depth interviews. First, the results of the conducted interviews are presented along with the described interview procedure. Second, the quality dimensions of eLearning services are formulated. Later on, the indicated quality dimensions are used as a basis for the survey design in the next research stage.

4.1 In-depth interview results

The interviews were conducted during four weeks in the period of May 4th – 29th, 2012, while the invitation letter for participation was sent in advance (attachment 2). Due to the time scheduling complications that the interview candidates experienced, two interviews were conducted on phone and the rest in a face-to-face format at the interviewees' premises. The interviews were audio recorded. Each interview lasted from thirty to forty minutes in average.

The interviewees differed in their experience of eLearning services in terms of years and in the number of projects they participated in. Moreover, the interviewees had different experience of eLearning service providers. Some were sophisticated consumers of the number of different suppliers. Others had mainly or only the experience of DF services. Also the interviewees' roles and functions in eLearning projects ranged considerably, from overall project management to training content development and consulting on the issues related to the training subject.

The data gathered during the in-depth interviews were grouped under two categories of technical (end product) and functional (service process) qualities. The summary of the data related to these two categories is presented in separate subsections of this chapter. In further, it helped formulate the quality dimensions of eLearning services.

4.1.1 eLearning end product

Few common patterns were indicated in relation to the expectations DF customers have about eLearning end product. First of all, the customers expect that the developed e-course meets the set up educational goals and satisfies training needs. Along with this, the interviewees defined the interactivity and innovativeness of learning activities to be the obligatory attributes of eLearning product (interviewee 1, interviewee 2, interviewee 4). Moreover, DF customers find it efficient in the training perspective if trainees could select from a given set of learning activities only the ones that relevant to their individual training needs (interviewee 3). Thus, trainees could decide on their individual training track and, thereafter, would gain a personalized learning experience. Moreover, it was noticed that eLearning course should not be limited by the training on a certain subject, but an after-training support should be also provided to trainees. According to an interviewee, it means, for example, educating about the data sources from which job-related material could be obtained to support and ensure the high-level performance of employees (interviewee 4).

Hereafter, DF customers are concerned with the motivation and interest arousing elements being incorporated in e-courses. “It should be not an eLearning as such, but a continuum of different data elements. It should be a learning sprint, a continued learning journey ...” (interviewee 1). In this regard, the interviewees repeatedly mentioned the requirement for including a wide range of media elements (videos, audios, animations, etc.) to eLearning product (interviewee 1, interviewee 3, interviewee 4). eLearning is also expected to be as much realistic as possible (interviewee 1). Thus, utilization of both media components and a case-based learning approach in eLearning is justified by pedagogical goals and the requirement to facilitate an enjoyable learning process of trainees.

In spite DF customers would like e-courses to be equipped with many attractive components, eLearnings are still expected to be short, compact and simple. In addition, e-courses should operate smoothly in the Learning Management Systems used by DF customers. Besides, DF customers would like eLearnings to be easy to administer while no specific technical competency would be required for this. The claim for eLearnings

to be easy in use by trainees was stated as well. It could mean, for instance, an easy and fast access to eLearning account or a straightforward process of task accomplishment etc. (Interviewee 2, interviewee 3, interviewee 4.)

DF customers also appreciate the proactive approach demonstrated by service suppliers with regard to training material development. In fact, service vendors are expected to generate the alternative training solutions that would meet the determined pedagogical goals the best. This is claimed due to the belief that suppliers have a sufficient expertise in educational field, which enables the objective opinion of the service provider on how training needs and training possibilities could be matched. (Interviewee 2, interviewee 4.) Simultaneously, service provider must demonstrate “responsiveness” (interviewee 1) to its customers. According to an interviewee, it is addressed through “careful listening to a client and understanding his needs”. This, in its turn, ensures that the developed pedagogical solution is tailored to the requirements of a particular customer, that solution is unique and different from the ones developed for other organizations. (Interviewee 2, interviewee 6.)

Most of the interviewees did not make the emphasis on the quality of the technical or visual elements of eLearning end product. Though depending on the customers’ experience, this issue was addressed differently. With regard to DF eLearning end product, the interviewees either expressed their absolute satisfaction with the technical and visual solutions provided by the company or communicated about the experienced difficulties associated with the management of eLearning course in the Learning Management System (interviewee 6). Moreover, some interviewees found that the quality of such eLearning media elements as video and sound should be further developed in the case of DF product. Besides, the interview participants communicated the requirement for the more comprehensive visual solution of eLearnings developed by the company. To sum up, it was indicated that DF customers do not compromise on the quality of the technical and visual components of eLearning end product and are relatively demanding in this regard. Furthermore, DF customers take it for granted that the technical solution of eLearning product is implemented irreproachably (interviewee 1).

In addition, due to organizations experience continuous changes related to the different aspects of their business operations and internal processes, the interviewees claimed for eLearning material to be “adjustable” in a content wise by customers themselves when it is required. These changes may refer to the modification of a certain process picture or the replacement of out-dated links etc. (Interviewee 3, Interviewee 4.) Furthermore, considering the fact that e-trainings developed by DF are mostly multilingual or made as an English language version, the special attention during the interviews was paid to the language quality of eLearning product. In fact, linguistic competency was recommended for further development in DF, at least with regard to English language.

4.1.2 eLearning service process

Concerning eLearning service process, the majority of the interviewed customers admitted that the establishment of a continuous dialogue with customers and active collaboration with them in all project phases facilitate smooth and efficient project management and ensures that the desirable outcomes will be achieved. The interviewees also communicated that “trust building” and creating the atmosphere allowing “a confidential conversation” between service provider and consumer are required (interviewee 2, interviewee 6). A “project transparency” term (interviewee 3) was used to express the idea of two-way cooperation between project parties. In fact, DF customers are willing to communicate with service providers more actively on such issues as project budget, technical limitations of the project, content development, sharing of project obligations, collaborative problem solving and others (interviewee 2, interviewee 4, interviewee 5). Ideally, e-training development is perceived as a cooperative creation process of service vendor and customer (interviewee 1). During this process, it is desirable that service vendor would “take a project ownership”. It means that supplier would implement the majority of the project-related tasks. Herewith, the role of the customer would be the communication of the project goals and requirements when project starts, followed by the minor assistance of supplier with developing eLearning content, and later on, the continuous verification of the results achieved by supplier at each project milestone. (Interviewee 6.)

In relation to the customer-supplier cooperation, the timely information sharing between the project parties is strongly appreciated by DF clientele. In practice, it let the customers perform their project duties efficiently. Moreover, in the customers' opinion, the efficient information flow facilitates effective resources planning along with an opportunity to keep control over the project constraints, e.g. budgets. In addition, the fact that the project parties operate in the same time zone was determined as a prerequisite of effective customer-supplier communication and a crucial factor of service supplier selection. (Interviewee 2.)

The interviews have showed that there is not a definite opinion on how eLearning projects should be managed. Though, the similarity of the management approaches in the involved organizations was named as a determinant of the effective and secured project process (interviewee 2). Moreover, on the one hand, DF customers would like suppliers to deliver eLearning services in conformity with the agreed project terms like project milestones, budgets and time schedules, i.e. "keeping the promises". Though, on the other hand, suppliers are expected to demonstrate flexibility about these project essentials on a customer request. Also, the time spent on the project implementation was claimed to be shorten, up to two months. (Interviewee 3, interviewee 6.)

The availability of human resources, both from the service supplier and service consumer sides, are crucial for the project success. Moreover, the enthusiasm of the suppliers' personnel about and their attitude to the implemented eLearning project have a significant effect on the customers' perception of service quality. "The right set up of the project personnel" (interviewee 5) predetermines a successful implementation of eLearning project. Thereafter, the pedagogical background and comprehensive experience of supplier in eLearning development are the measurements of the service vendors' ability to deliver the expected service. In addition, the suppliers' competency in certain fields of eLearning application such as marketing, finance etc. was named as a guarantee of the quality service promised by the provider. During the project implementation, service providers are, thereafter, expected to continuously comment on the customers' vision of the eLearning solution to be developed – its visual outlook, content etc.

Projects get often complicated due to unconsidered issues might arise. Thus, DF customers claim for the efficiency of the problem-shooting process that is ensured by customer-supplier collaboration. DF customers would like service provider to be the active problem-solver that does not transfer a decision-making duty to its customers but offers the solutions that better off both project parties. (Interviewee 1, interviewee 2, interviewee 6.)

While cooperating with the same supplier and, especially, working on the eLearning product previously designed together, DF clients would like the achievements of the earlier done project to be utilized to allocate the resources required more efficiently. For example, some phases in the project process such as a “kick-off” workshop could be skipped, while the essentials of the current project would be the focus of attention. Moreover, some DF customers require an after-service assistance to be provided by the service company. For instance, it could be advising on how to launch the developed eLearning and in application to what number of trainees etc. (Interviewee 6.)

4.2 Quality dimensions of eLearning services

The interviews provided with the evidence that the technical component of eLearning services (end product) cannot be omitted when managing the quality of services in question. In fact, DF customers are aware of both functional and technical qualities in a quite equal proportion and differentiate clearly these two dimensions while discussing their experience of eLearning services. Ultimately, both functional and technical qualities affect the customers’ overall perception of services in question. Thereafter, the assumption stated in literature that individuals evaluate service process quite subjectively (Graham 1990, 15) was confirmed in the result of in-depth interviews. The interview participants admitted that service process is a complex dimension, which assessment is often driven by personal feelings rather than by objective rationales (interviewee 2).

The analysis of the interviews let define the quality dimensions used by DF customers to judge about eLearning services. The dimensions were categorized by referring to the classifications of Grönroos and Berry described in the research framework (figure 3).

Ultimately, both technical and functional dimensions of service quality were admitted applicable with regard to eLearning services. Though, some quality categories inside of these dimensions have required reconsideration.

Additionally to assurance and reliability dimensions, empathy and tangibles categories were indicated within the technical quality of eLearning services. It should be noticed that empathy and tangibles were not discussed in the studied literature as the dimensions of technical quality in relation to any service. Thus, these quality dimensions are distinguishable for eLearning services. However, the definition of the tangibles dimension introduced by Berry (Grönroos 2000, 74-75; Zeithaml et. al. 1990, 26) was reformulated to express better its meaning in application to the services in question. In the case of eLearning end product, the tangibles dimension concerns such elements of eLearning content as technical properties of e-course, visuals and incorporated learning activities, as well the extent and comprehensiveness of the training material coverage and user-friendliness of the final product etc.

Regarding the functional quality, all the dimensions of Parasuraman's model were determined to be relevant with regard to eLearning services except tangibles. As the in-depth interviews indicated, DF customers consider the tangibles of service process to be insignificant in application to the services studied.

Ultimately, the initial theoretical framework (figure 3) outlined in the beginning of the research was adjusted. A modified model is presented in figure 5.

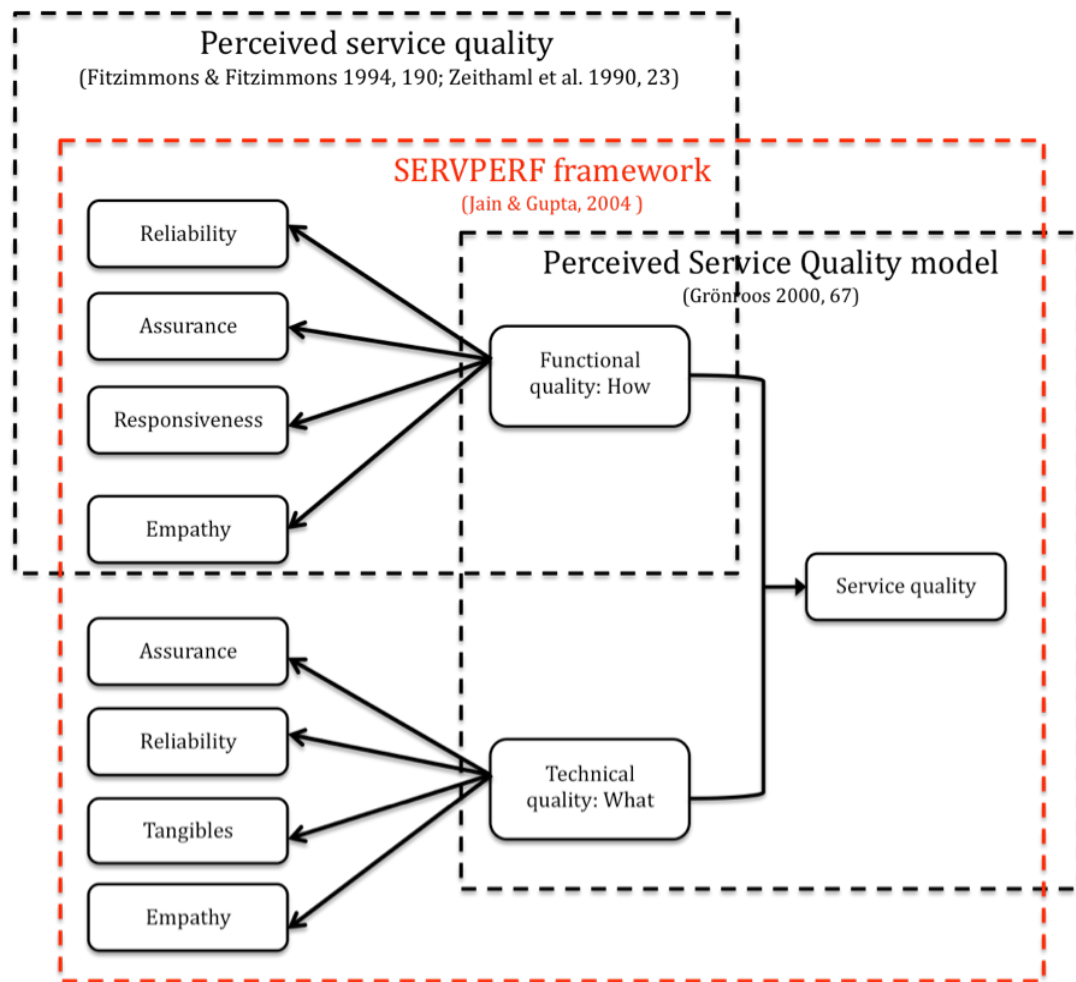


Figure 5. Modified research framework

5 Survey results and discussion

The chapter starts with the description of the survey design and the survey implementation process, followed by the introduction of the collected data and results' discussion. The data related to eLearning end product are presented and discussed separately from the data gathered with regard to eLearning service process.

5.1 Survey procedure

Survey was organized in an electronic format by sending a standardized questionnaire to the respondents via e-mail (attachment 5). The questionnaire was designed with the help of Webropol application (Webropol 2012). The survey form included the questions about the respondents' position in the company of their current employment and the participants' overall experience of eLearning services. The main section aimed at measuring the importance of the quality dimensions of the services studied. This survey part was constructed with twenty statements related to eLearning end product and twenty-four statements related to eLearning service process. The statements were grouped to five quality dimensions of Parasuraman's model of perceived service quality: tangibles, responsiveness, assurance, reliability and empathy (figure 2). (Ghauri & Gronhaug 2002, 100-101.) The respondents were presupposed to evaluate the importance of each statement on the five-point Likert scale ranging from very unimportant to very important. (Attachment 5.)

After the survey form was designed, the managing director of DF, who possesses the comprehensive knowledge of and the practical experience in developing eLearnings and realization of eLearning projects, was asked for the questionnaire review. Based on the received feedback, the minor adjustments were made to the terms used in the survey form. Thereafter, the survey invitation letters with the Internet link to the questionnaire were sent to DF customers on August 6th, 2012 (attachment 4). The reminder was sent in a week on August 13th, 2012. The collected survey data were analysed by application of Microsoft Excel programme.

5.2 Survey results

The chapter presents the survey data that have been gathered about the customers' overall experience of eLearning services and the quality dimensions of eLearning end product and service process. Thereafter, the results of the study on the relationship between the service supplier experience and the importance perception of quality dimensions are presented.

5.2.1 Overall experience of eLearning services

The total number of the returned surveys was 22. The majority of the respondents have experienced eLearning services in the past year: 59 % – 1-2 times, 5 % – 3 times and 23 % – more than 3 times. The nature of this experience, whether it was participation in the process of purchasing eLearning service and/or development of eLearning solutions, was not intended to verify. The minor share of the respondents either has not had the experience of eLearning services in the past year (9 %) or could not specify it (5 %). (Figure 6.)

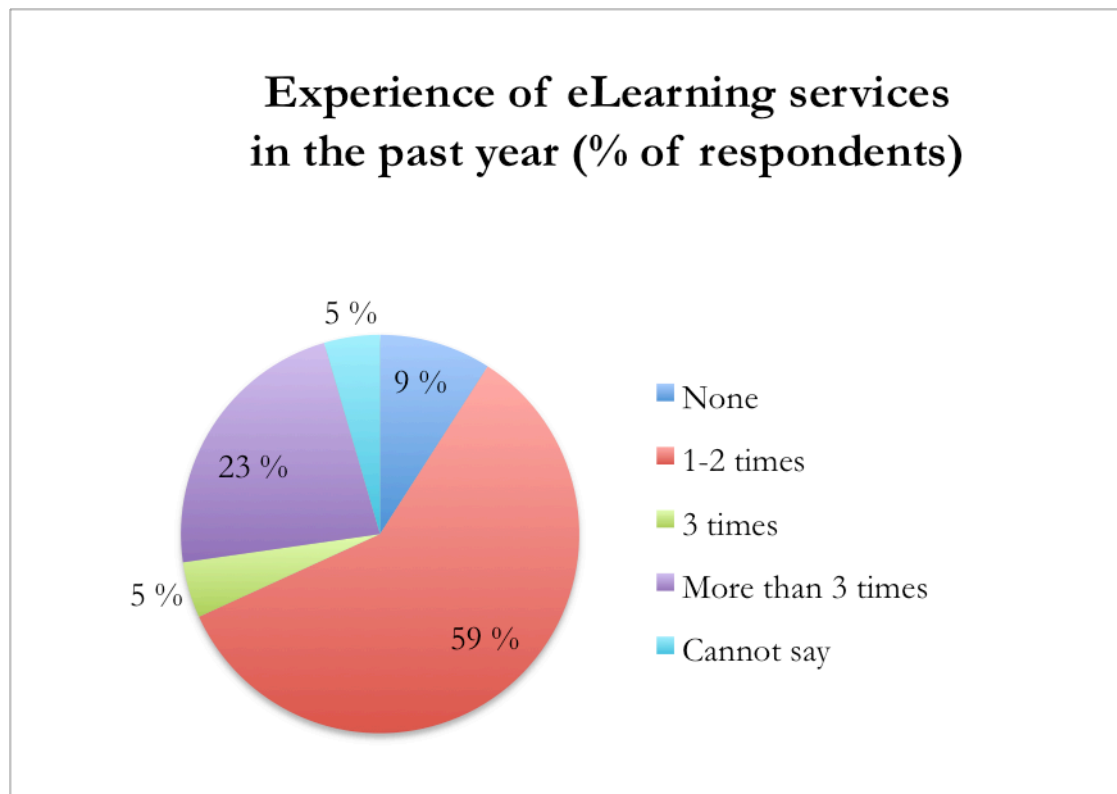


Figure 6. Frequency of eLearning service experience in the past year

Despite some of the respondents were not the consumers of eLearning services in the past year, all of them have had either the experience of DF as a supplier of eLearning service – 41 %, or another service provider(s) – 18 %, or both DF and another vendor(s) – 41 % (figure 7).

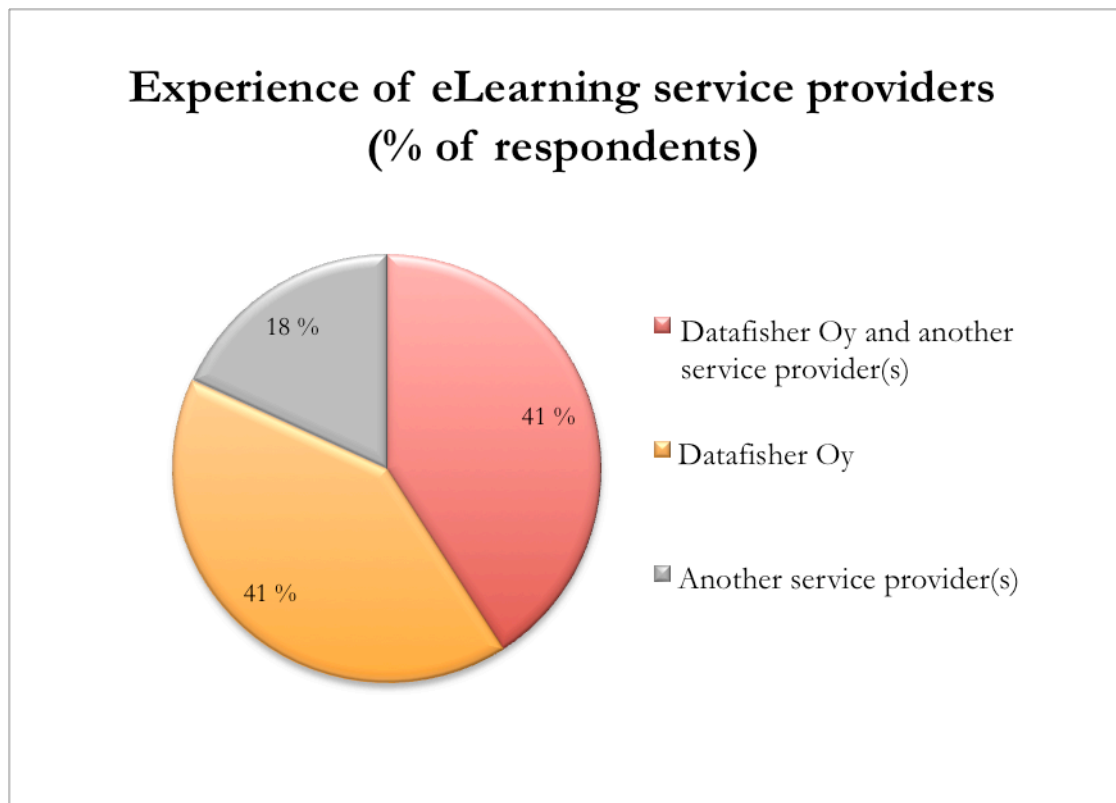


Figure 7. Experience of eLearning service providers

In addition, three categories of professional competency of the survey participants were identified: Human Resource Management, Project Management and Field Expert. The respondents represented these expertise areas in the proportion of 50 %, 18 % and 32 % respectively (figure 8).

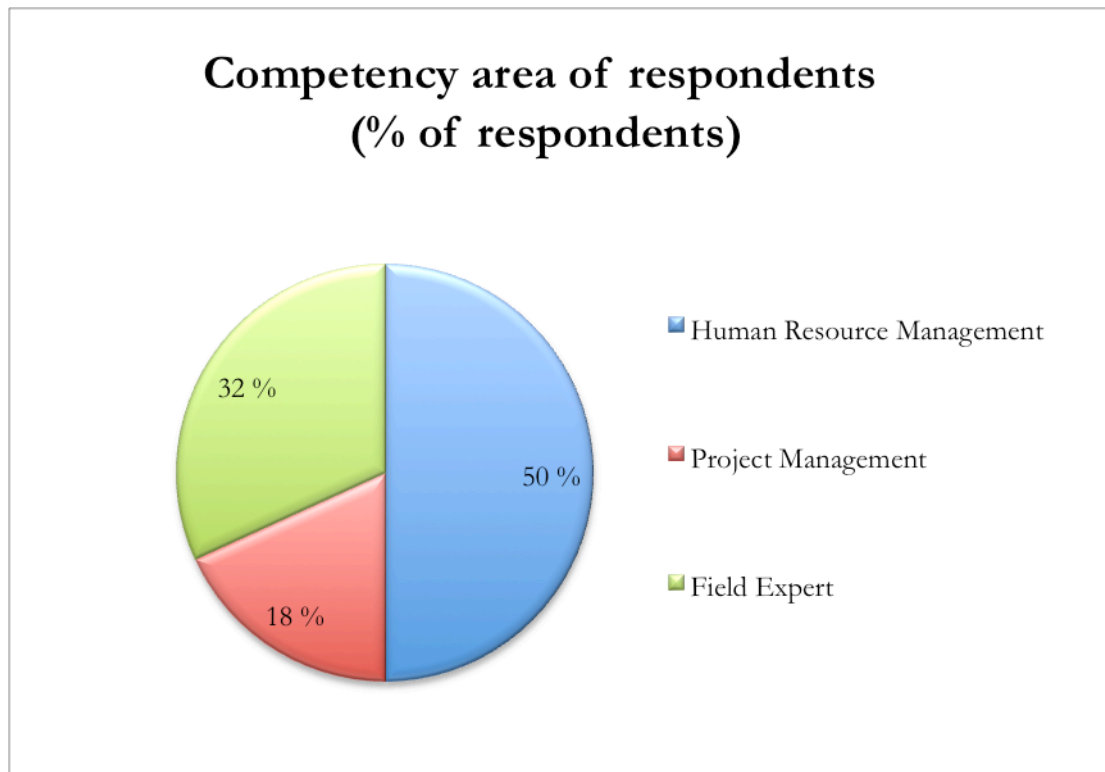


Figure 8. Competency area of survey respondents

5.2.2 Quality dimensions of eLearning end product

To begin with, the mean importance of the statements was calculated separately within each quality dimension of eLearning end product. The statements with the mean varying from four to five on the importance scale were considered as the most essential ones.

In tangibles dimension, the statements with the highest rate were “eLearning is easy to administer by the customer” (4,23), “Learning activities are interactive” (4,36) and “User interface is simple in use” (4,50). The importance rate of the rest of the statements was under four. (Figure 9.)

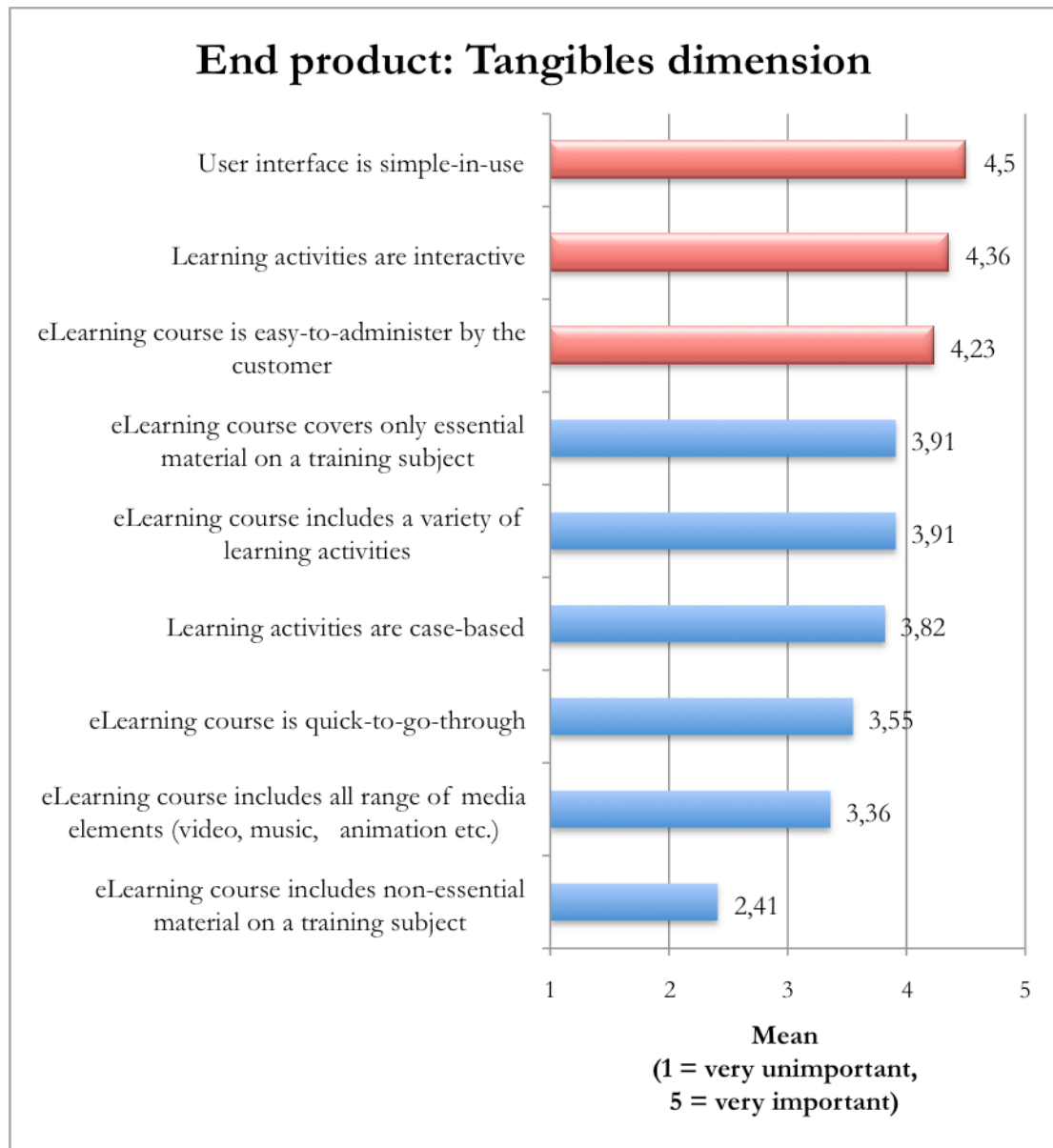


Figure 9. Tangibles quality dimension of eLearning end product

In assurance dimension, the importance rate of the “Supplier has previous experience in developing eLearning course” statement was the highest – 4,32. The mean importance rate of 4 was calculated for the statements related to the supplier’s English language proficiency and professional competency in the fields of eLearning application. The importance of the supplier’s pedagogical background was in average rated 3,68 on the importance scale. (Figure 10.)

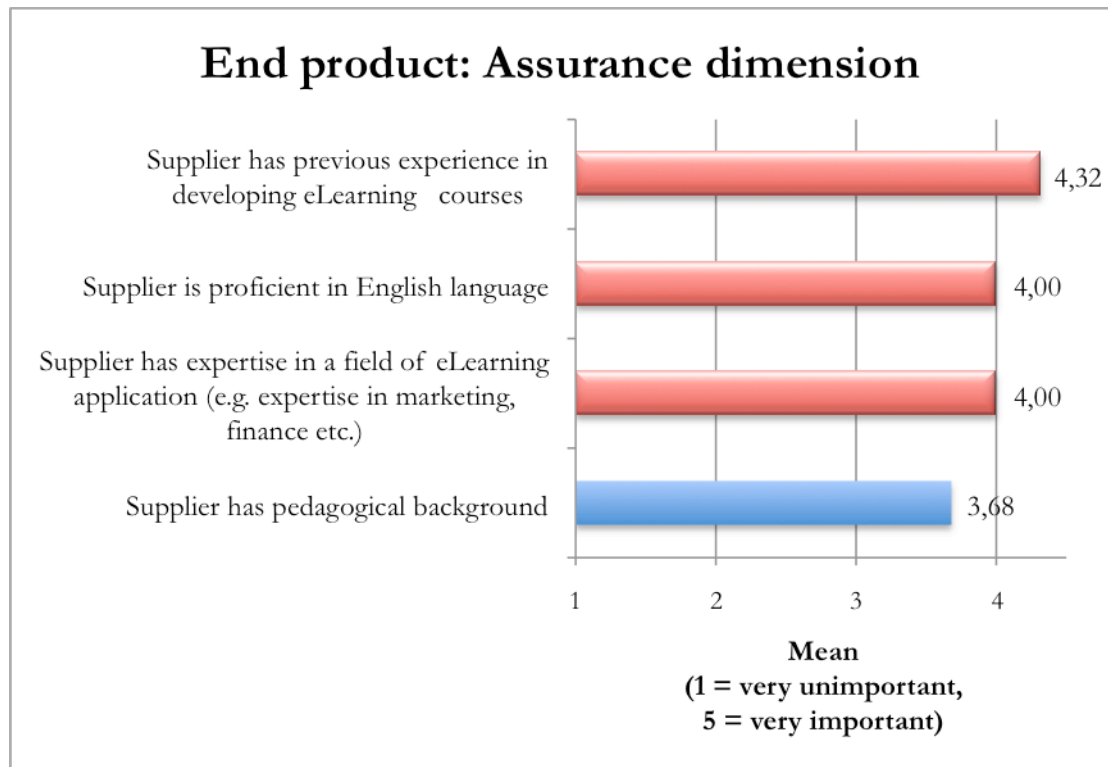


Figure 10. Assurance quality dimension of eLearning end product

The highest rate (4,41) in reliability dimension was given to the statement “eLearning course meets the set up pedagogical goal(s)”. The lowest mean importance rate (3,68) was calculated for the “eLearning material is compatible with the customer’s Learning Management System” statement. (Figure 11.)

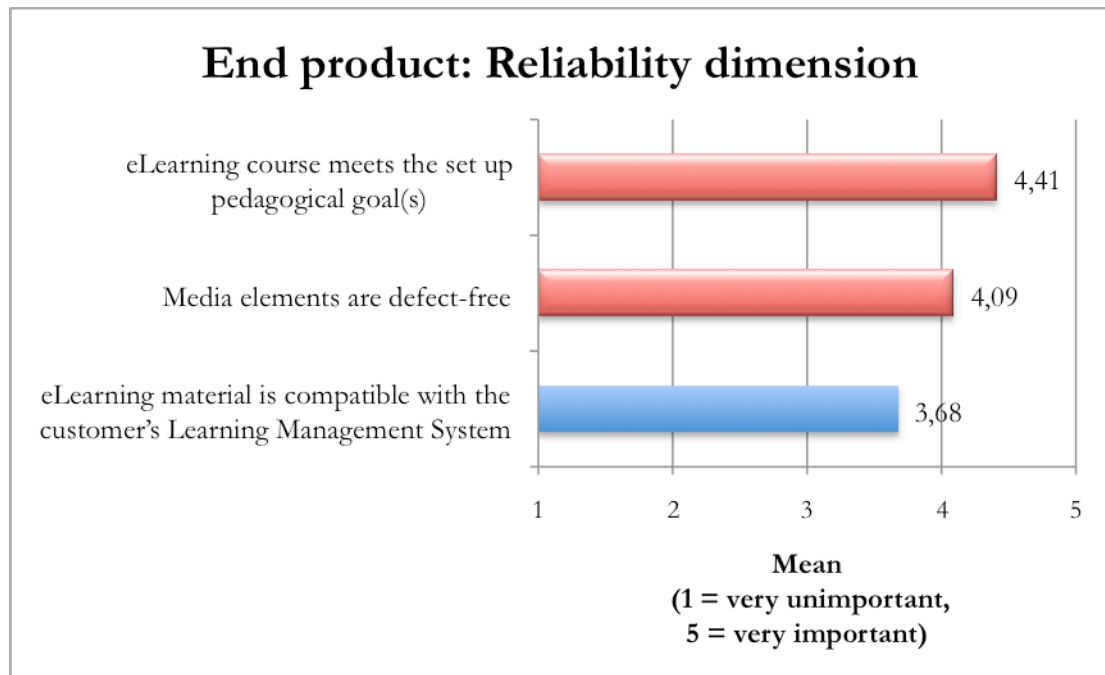


Figure 11. Reliability quality dimension of eLearning end product

Regarding the empathy dimension of eLearning end product, the innovativeness both of eLearning visual design and pedagogical solution were considered to be the most important. Their importance rates were 4 and 3,95 respectively (figure 12).

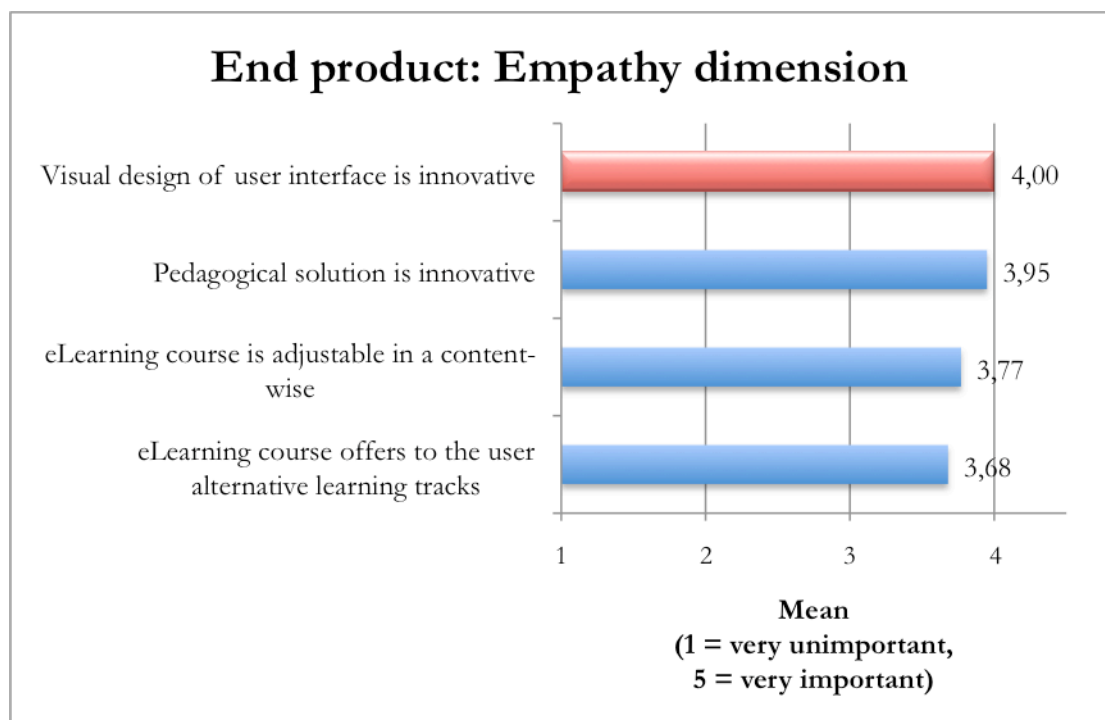


Figure 12. Empathy quality dimension of eLearning end product

The next, the mean importance of each dimension was calculated. In figure 13, it is shown that reliability and assurance dimensions have the highest importance rates with regard to eLearning end product – 4,06 and 4,00 correspondingly. However, the weight distribution of the importance rates in these quality categories detects that the share of the “very important” statements dominates in assurance dimension (58%) rather than in reliability dimension (44%) (figure 14). The empathy and tangibles dimensions of the end product are considered to be slightly less important after all (figure 13).

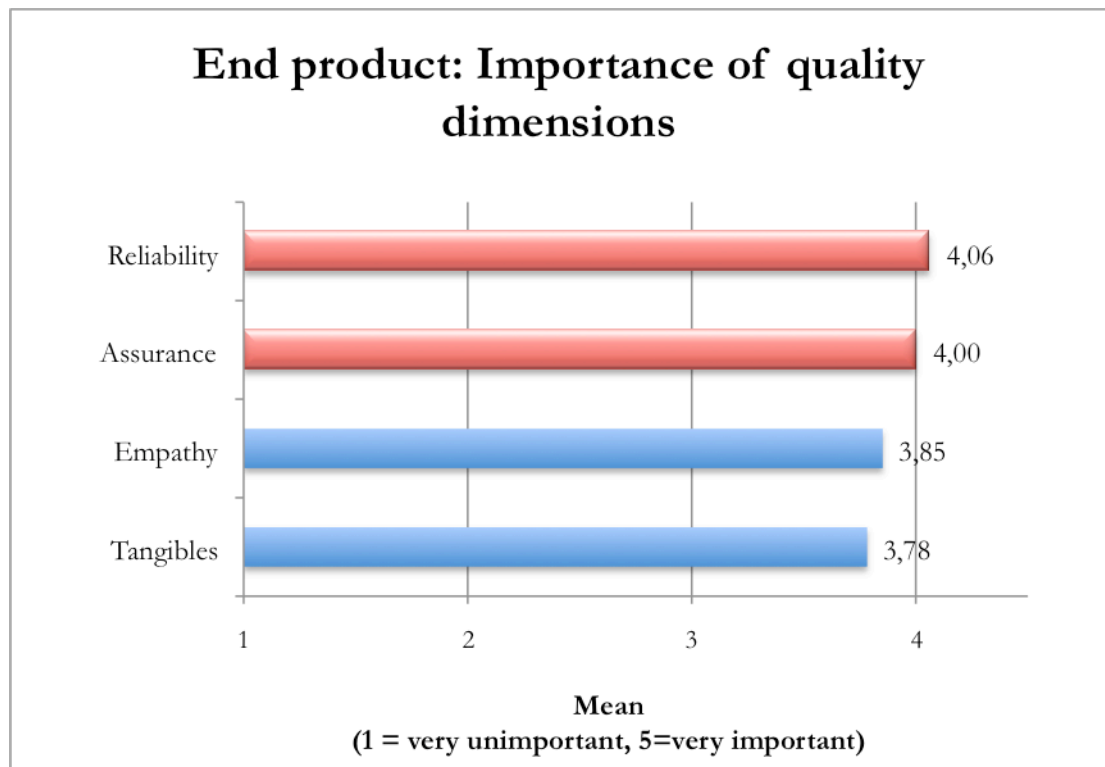


Figure 13. Importance of quality dimensions of eLearning end product

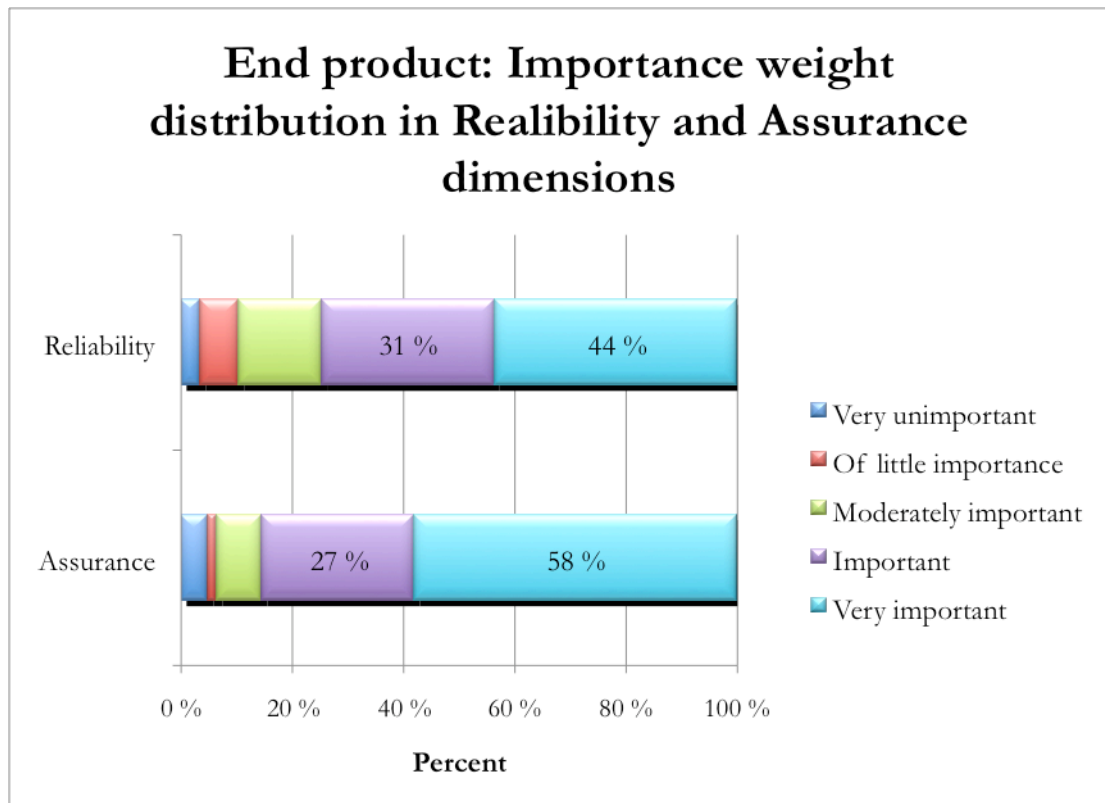


Figure 14. Importance weight distribution in reliability and assurance quality dimensions of eLearning end product

5.2.3 Quality dimensions of eLearning service process

First, the mean importance of the statements was calculated within each dimension of eLearning service process. Thereafter, the mean importance of each dimension was determined and compared to each other.

The formulated reliability statements addressed the supplier's ability to deliver eLearning services in conformity with the agreed terms. Even though all these statements were in average rated as important, a slight difference was detected depending on which project terms are to be followed. The adherence to the agreed eLearning content was considered more important (4,64) than project implementation at agreed price and during the promised time. The importance rates of the corresponding statements were 4,50 and 4,27. (Figure 15.)

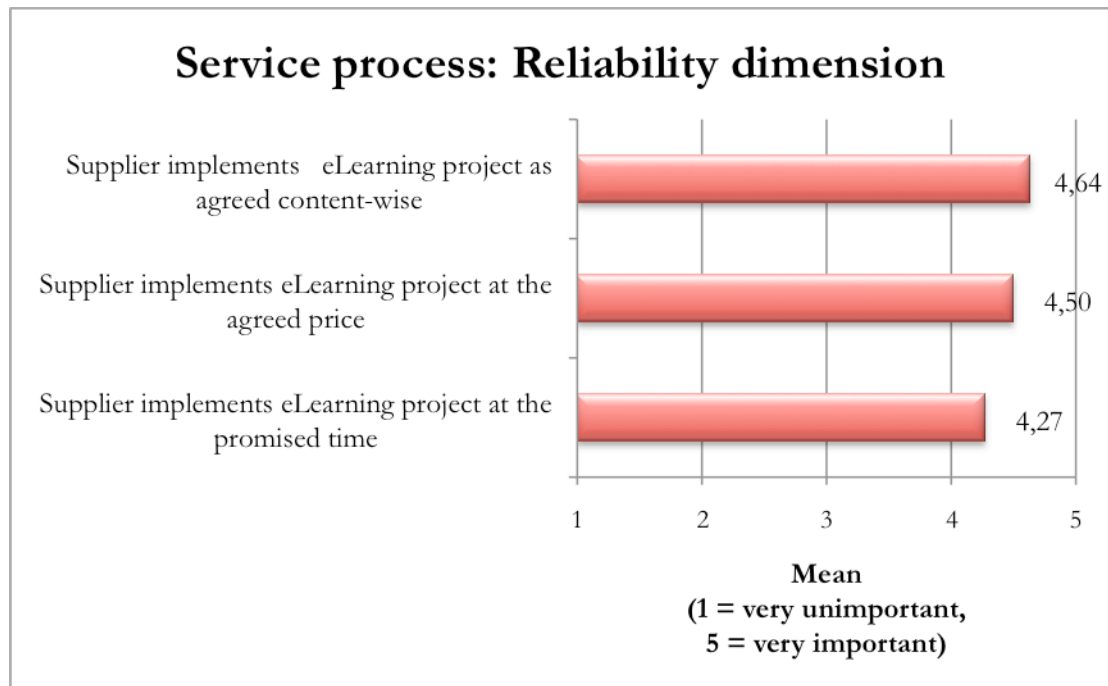


Figure 15. Reliability quality dimension of eLearning service process

“Sufficient number of employees” and “Possession of technical capabilities”, which are required to implement an eLearning project, were the statements with the highest importance rates in the assurance dimension of eLearning service process – 4,05 and 4,23 correspondingly. The requirement for a similar project management approach of the supplier and customer was rated in average 3,77 on the importance scale. (Figure 16.)

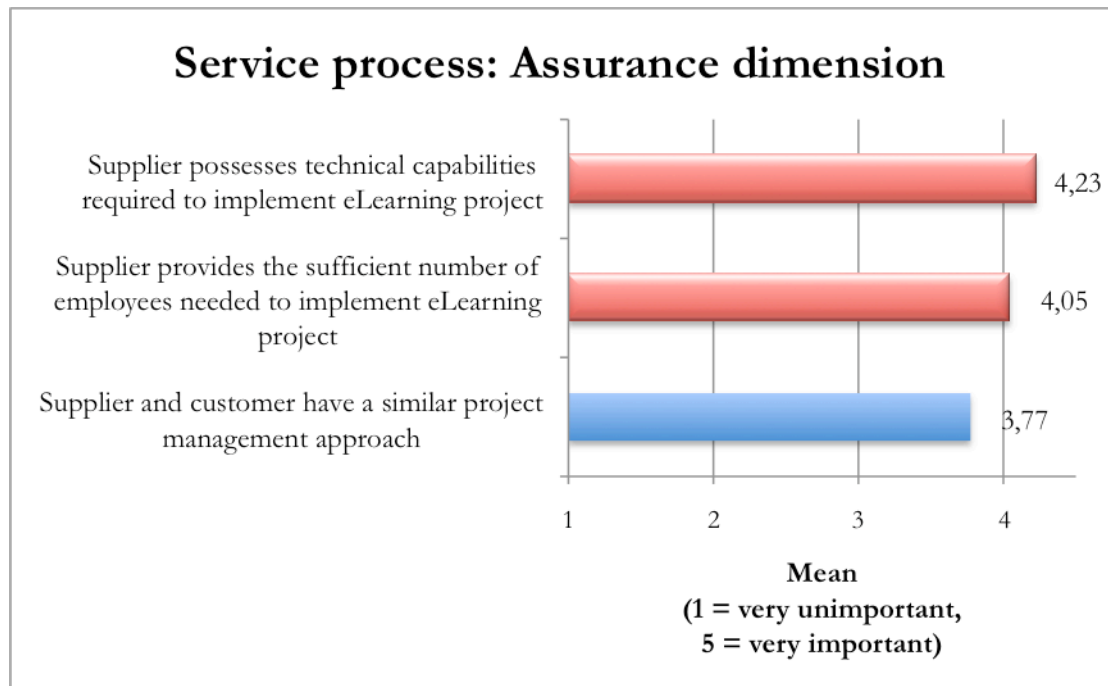


Figure 16. Assurance quality dimension of eLearning service process

In responsiveness dimension, the majority of the statements were rated from four to five on the importance scale. These are the statements related to the requirement for on-going customer-supplier interaction during the project implementation. The highest importance rate was calculated for the “Supplier understands customer’s needs” statement (4,59). The second highly rated statement (4,41) was “Supplier is available on a customer request (via email, on phone, etc.)”. At the same time, the customer’s after-service support was considered to be less important. The related statements were rated in average less than four on the importance scale. (Figure 17.)

Service process: Responsiveness dimension

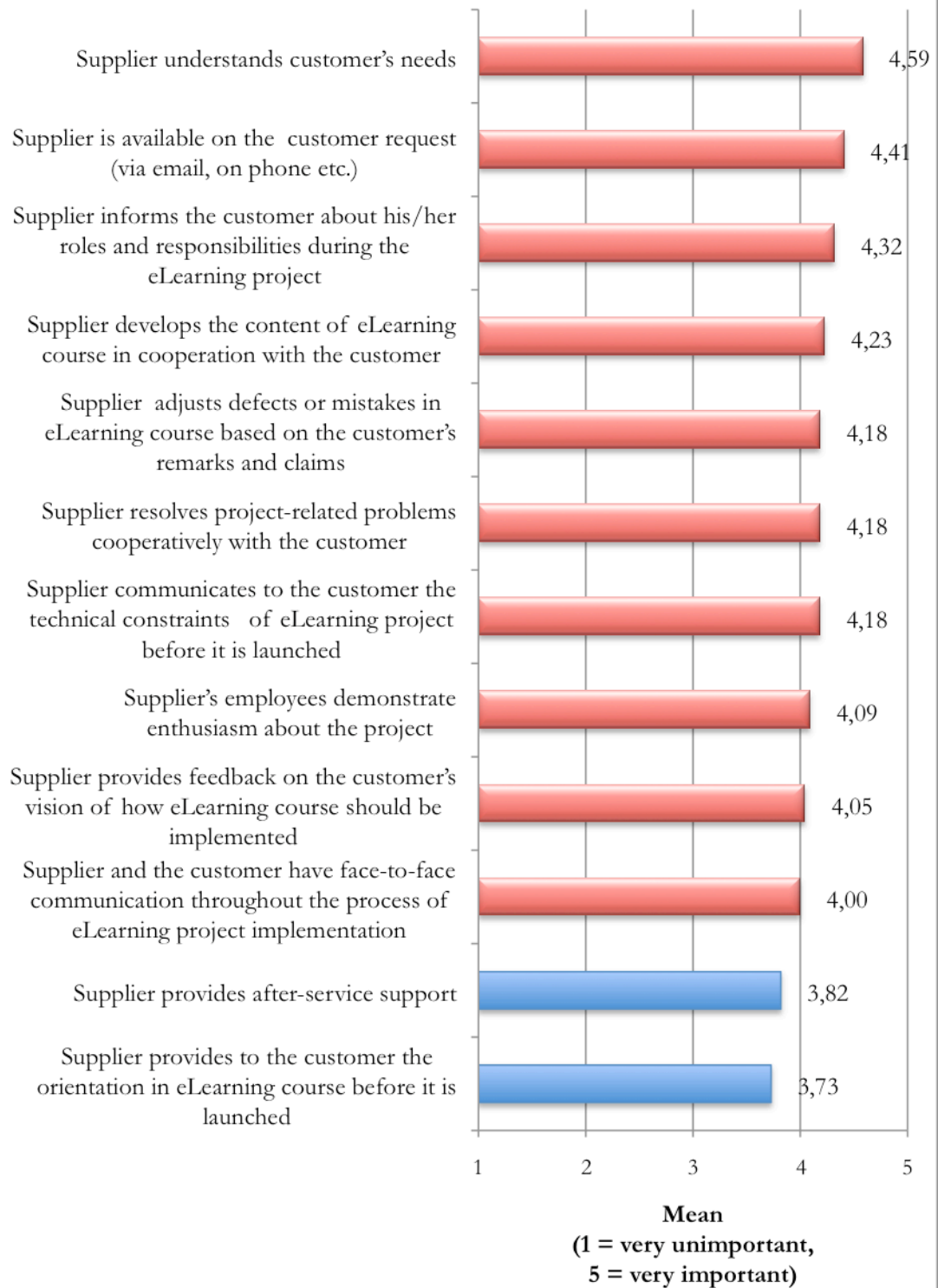


Figure 17. Responsiveness quality dimension of eLearning service process

The last, all the empathy statements related to eLearning service process were found to be almost equally important. Though, the statements that communicated the requirement for a continuous customer-supplier dialogue during the service delivery process were determined to be more important (4,41) than supplier's flexibility to project time schedules (4,23) or his ability to offer alternative training solutions (4,36). (Figure 18.)

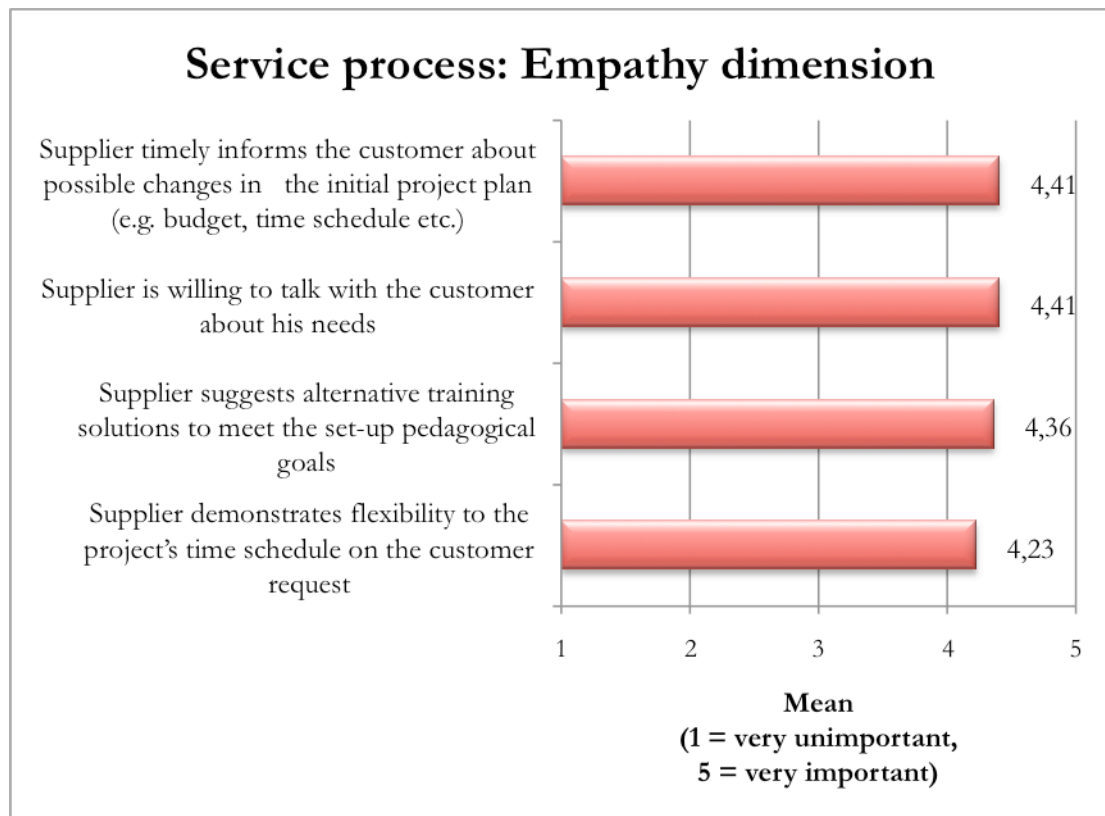


Figure 18. Empathy quality dimension of eLearning service process

The mean importance calculated for the quality dimensions of eLearning service process proved that reliability and empathy are of utmost importance as perceived by DF customers (figure 19). The detailed analysis of the importance rates' distribution within these dimensions showed that the number of the statements rated as very important is greater within reliability category (74%) than within empathy dimension (55%) (figure 20).

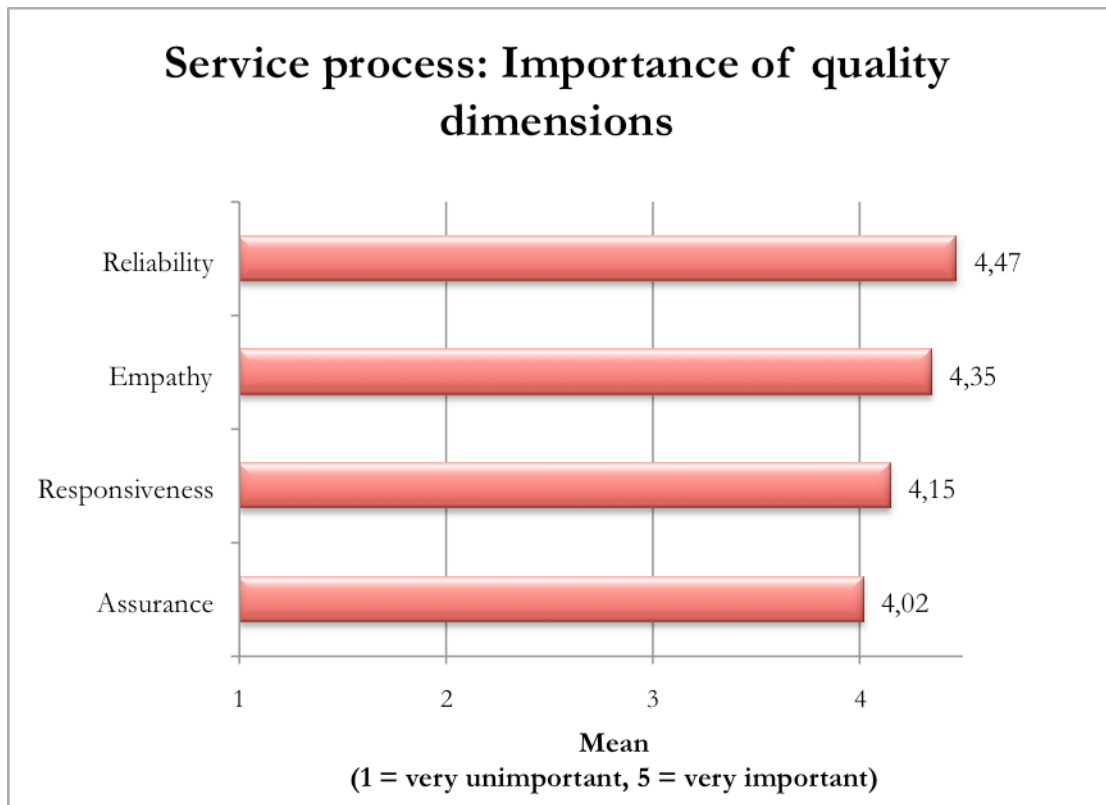


Figure 19. Importance of quality dimensions of eLearning service process

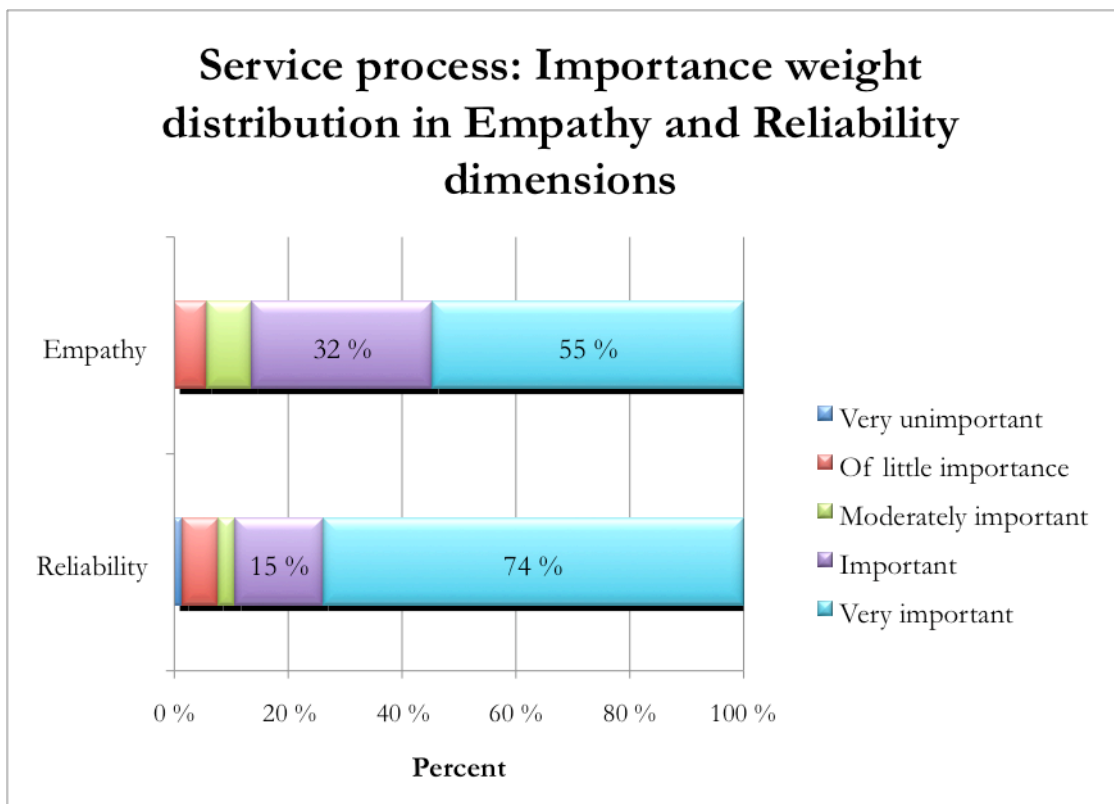


Figure 20. Importance weight distribution in reliability and assurance quality dimensions of eLearning service process

5.2.4 Service supplier experience and importance of quality dimensions

Due to the survey respondents differentiated considerably in their experience of eLearning service suppliers (figure 7), it was decided to define whether supplier experience has effect on the perceived importance of the quality dimensions of eLearning services. Only the most important quality dimensions of eLearning end product and service process (figure 13 & 19) were taken for the examination on the subject of possible correlation. As it is shown in figure 21, a contingent pattern was determined with regard to the issue studied. The individuals with the experience of service providers other than DF are tender to evaluate the studied quality dimensions as less important and have rated them in average from three to four on the importance scale. At the same time, the survey participants with the experience of both DF and other suppliers of eLearning services have rated the analysed dimensions higher on the importance scale than the individuals with only DF experience.

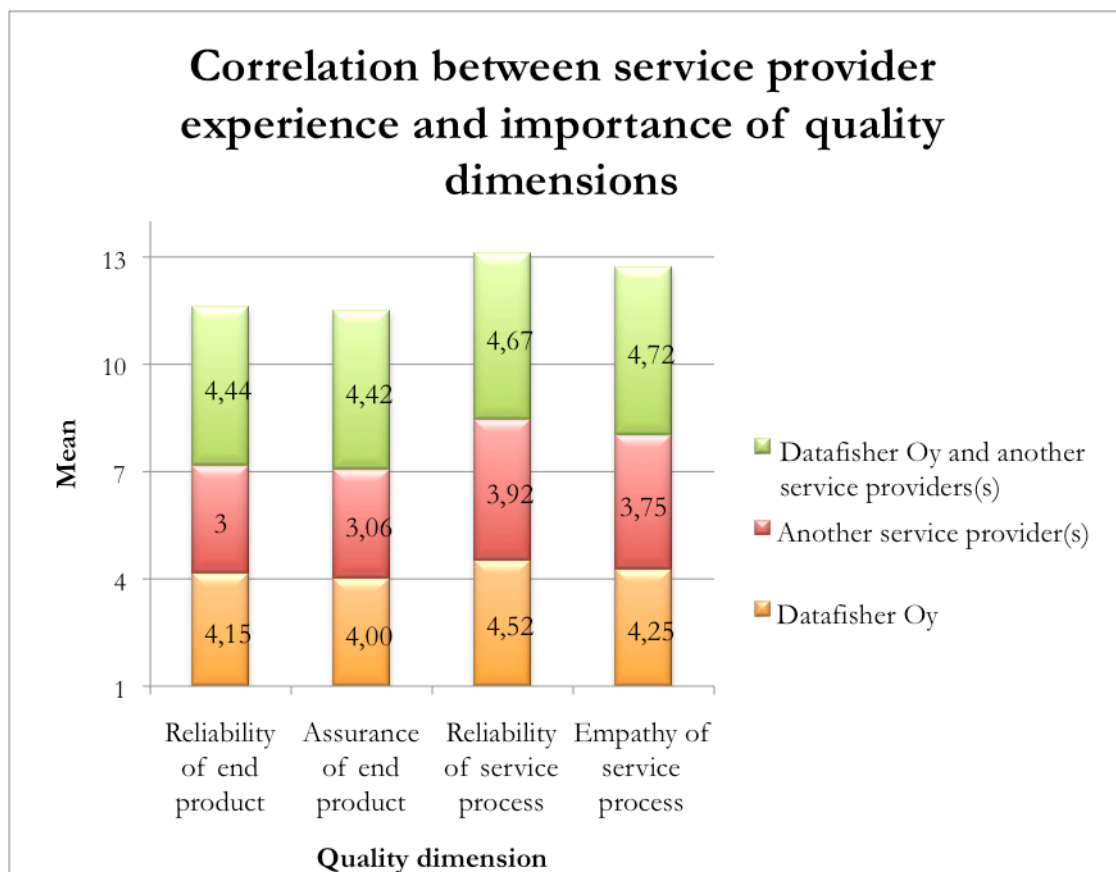


Figure 21. Correlation between service provider experience and importance of quality dimensions

5.3 Results discussion

The chapter discusses the survey data introduced in the previous subsections. In the beginning, the grounds for the data collection about the overall experience of eLearning services are explained and conclusions are made. It continues with the discussion of the quality dimensions of eLearning end product and service process. In the end, the open comments gathered during the survey are summarized.

5.3.1 Overall experience of eLearning services

The calculation of the survey response rate was not justified in terms of the present research. Presumably, DF customer database that has been used as a survey sample included the individuals that might have experience of DF services other than eLearning. The resources available did not allow determining the survey target group from the full list of DF contacts. Therefore, the first three questions in the questionnaire aimed at verifying the validity of data sources: first, whether the respondents possess any experience of eLearning services (question two); second, what are the possible areas of expertise that the survey participants have in respect to eLearning projects (question one); and last, what experience of eLearning service suppliers the respondents have (question three) (attachment 5).

The analysis of the respondents' overall experience of eLearning services proved that the gathered data could be treated as valid and objective. Moreover, it was assumed that a wide range of opinions have been collected due to the respondents had different experience of service providers, and the frequency of service consumption in the past year also varied among the participants. The diversity of the respondents' professional competencies let presuppose that their roles in eLearning projects could also vary considerably. Some of them could be involved mainly to the development of e-course content, some to the formulation of the training goals and overall objectives of eLearning projects, while others could be more actively involved in the project implementation process. Thereby, the received responses were considered to be the objective reflection of the respondents' actual experience with regard to both the functional (service process) and technical (end product) aspects of eLearning services.

5.3.2 Quality dimensions of eLearning end product

The following patterns in the importance perception of the quality dimensions of eLearning end product were determined:

- **Tangibles:** There are two attributes of eLearning end product that DF customers consider to be of paramount importance. The first one is user-friendliness of eLearning both in the trainees and the e-course administrator's perspectives. The second crucial characteristic of eLearning product is the interactive nature of learning activities. Additionally, the focus on the essentials of the training material is expected along with the diversity of learning activities built on real business cases.
- **Assurance:** The confidence of the customers about receiving the promised service has considerable influence on the overall perception of service quality. The survey results demonstrate that in the case of eLearning services the suppliers' trustworthiness in respect to their ability to develop a quality eLearning course is proved by the previous experience of the vendor in developing eLearnings. Moreover, the English language competency of the supplier and his expertise in the fields of eLearning application (marketing, finance etc.) are the prerequisites of delivering the eLearning product of the expected quality. The supplier's pedagogical background is less critical in this regard.
- **Reliability:** The accuracy of the developed eLearning end product, i.e. its reliability, is evaluated predominantly with reference to the training goals initially predetermined. The technically faultless realization of the set up objectives is another factor against which the reliability of eLearning end product is evaluated.
- **Empathy:** As perceived by DF customers, the personalization of eLearning end product is, first of all, addressed through the innovative visual design, and in the second place, through the pedagogical novelty of eLearning solution.

Referring to figure 19, the importance hierarchy of the quality dimensions of eLearning end product has been determined. Reliability was defined as the most influential factor affecting the quality perception of eLearning product. Assurance and empathy are the second and third important quality categories, and tangibles dimension is the least important.

5.3.3 Quality dimensions of eLearning service process

The consistent patterns in the importance perception of the quality dimensions were indicted in relation to eLearning service process:

- **Reliability:** The reliability of eLearning service process is addressed through the ability of the supplier to meet the agreed project terms. The implementation of eLearning content as agreed is defined as the most significant component of the service process reliability, while the adherence to the project budget constraints has a slightly less influence on the quality perception. Moreover, eLearning implementation strictly within the predetermined project schedules is considered to be the least important attribute of the reliable service process.
- **Assurance:** Based on the survey results, the sufficient number of the employees provided by the supplier and his technical capabilities needed to accomplish eLearning project ensure the service process efficiency. Though, the similarity of the project management approaches in the organizations involved in eLearning project is not a crucial determinant of the service process efficiency or the factor of the project success in overall.
- **Responsiveness:** In general, DF customers expect service suppliers to cooperate and communicate actively with them on the project-related issues throughout the service delivery process. Moreover, the key indicators of the supplier's readiness and willingness to provide the promised service is an understanding of the customers' needs and availability of the supplier on a customer request during the project implementation. These are the factors against which DF customers are tender to evaluate the responsiveness of eLearning service process.
- **Empathy:** The empathy of eLearning service process, or its customization, similarly to the responsiveness dimension, is addressed through a continuous cus-

customer-supplier dialogue. Indeed, it is expected from the service supplier that customers are timely informed about the difficulties occurred or the changes required to be done to the project plan. Besides, the alternative training solutions offered by the supplier and the supplier's flexibility about the project due dates are considered to be the characteristics of the customized eLearning service process.

Some similarities and differences were identified in the importance hierarchy of the quality dimensions suggested by Parasuraman (figure 2) and with regard to eLearning service process (figure 19). First of all, reliability is considered to be the most important quality dimension in both cases. However, in the case of eLearning services, the empathy of the service process is found to be more important than its responsiveness and assurance, while in Parasuraman's model the latter dimensions, in opposite, have the higher importance value than empathy.

5.3.4 Service supplier experience and importance of quality dimensions

The present research did not pursue the objective to study the grounds for the difference in the importance perception of the quality dimensions of eLearning services depending on the supplier experience. However, the detected correlation could be studied in further. Presumably, this research could provide information about the current performance of DF in comparison to its competitors.

5.3.5 Open comments

The final question of the conducted survey suggested the respondents share their open comments about the quality of eLearning services delivered by the case company or another service provider. A few comments have been collected (attachment 6). They mainly addressed the respondents' overall experience of DF eLearning services.

Despite some drawbacks were mentioned, the survey participants evaluated the company's eLearning product as very satisfying. There was also stated the claim for measuring the project outcomes against the initially stated project goals. Most of the re-

ceived comments related to eLearning service process and communicated some weaknesses of the process developed in DF. The mentioned area of poor performance in the company is adherence to project time schedules and to set up budget constraints. Though, professionalism, enthusiasm and flexibility of DF personnel were mentioned as the distinguish characteristics of the company.

6 Conclusions

The concluding chapter presents the summary of the key research findings, which managerial implications are thereafter discussed. Furthermore, a few suggestions for further research are made.

6.1 Overall outcomes

The present research has been conducted as a sequence of three interrelated phases. It was predetermined by the logic of the investigative questions stated in the beginning of the thesis process. First, the theoretical study was implemented. As an outcome, the theoretical framework of the present research was drafted by the synthesis of two models of service quality perception both implying a dimensional approach to service quality measurement. The developed research framework provided the theoretical grounds for the empirical study fulfilled in further.

The empirical research started with the in-depth interview procedure. The data gathered by the means of the in-depth interviews let generalize about the service attributes that influence the quality perception of eLearning services. Thus, the quality dimensions of the studied services were determined. In fact, it was indicated that two models of service quality perception included into the research model are interrelated in the case of eLearning services: **technical quality correlates with reliability, assurance, empathy and tangibles quality categories**, whereas **functional quality correlates with reliability, assurance, responsiveness and empathy quality dimensions**.

Thereby, some quality categories were found not relevant to the studied services when differentiation to technical and functional qualities is made. Additionally, the definition of the tangibles dimension of technical quality (end product) was reconsidered. Ultimately, the initial research framework was adjusted in accordance with the defined quality categories of eLearning services.

The empirical study continued with the survey procedure that was implemented to gather the quantitative data on how the quality dimensions of eLearning services are

prioritized by DF business customers. The survey was designed with reference to the qualitative data obtained from the in-depth interviews and the conclusions made about the quality dimensions applicable to the case of eLearning services. In the result of the survey, the importance weights of the quality dimensions within the technical and functional qualities of eLearning services were measured. Even though all the quality dimensions were defined in general as important, **reliability and assurance** were determined as **the most important dimensions with regard to eLearning end product** whereas **empathy along with reliability** were considered to be **the dominating quality categories in relation to eLearning service process**.

In overall, the present research has proved applicability of the dimensional approach to the quality measurement of eLearning services. However, the conducted study has indicated some distinctions in the quality perception of eLearning services what should be considered while designing and implementing the quality management process of the services studied. Moreover, the detected patterns in the importance perception of eLearning quality dimensions confirmed the assumption generally stated in literature that service reliability is of utmost importance and tangibles are of least importance.

6.2 Managerial implications

The case company may utilise the research outcomes in several ways. The survey tool developed to measure the importance of quality dimensions could be widely utilised for these purposes and adjusted in accordance with the company's needs.

First of all, the knowledge of the quality dimensions of eLearning services could be used for a more constructive and focused customer satisfaction survey in relation to eLearning services of DF. The company may develop a measurement scale to assess the quality of different attributes of the delivered services as perceived by customers. Similarly, the quality perceptions of DF employees could be investigated. Potentially, the comparison of the customers and employees' quality perceptions could provide the explanation of the possible dissatisfaction that DF customers may experience with the received services. Subsequently, the needs for service improvement could be determined to meet the customers' expectations.

The knowledge of the most important quality dimensions and the most crucial issues within each quality category (formulated as statements in the developed survey tool) could be the basis for the performance analysis in the company and, eventually, the basis for the reconsideration of the service practices existing in the company at the moment. Ultimately, the quality of DF eLearning services could be developed and the customers' expectations about them could be met better. Moreover, time and human resources could be allocated more efficiently during the project implementation.

6.3 Suggestions for further research

A few topics for further research were indicated. First, the determined relationship between the importance perception of quality dimensions and service supplier experience (figure 21) could serve as a background for a new study. The present research does not provide any additional data that would explain the grounds for the defined correlation. Thereby, the factors affecting this relationship could be investigated. Moreover, the relevance of the quality dimensions determined with regards to the perceptions of DF business customers could be studied in application to other customer groups of the company – public and academic sectors. Furthermore, the correlation between the perception of the technical and functional qualities of eLearning services could be investigated. Likewise, the influence of DF's organization image on the overall service quality perception could be researched.

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Attachments

Attachment 1. Overlay matrix

Investigative Question	Theoretical Framework	Measurement Tools & Questions	Results
1. What is the service quality?	2.1.1, 2.1.2	Desktop research	2.1.2
2. What are the quality dimensions in a service business?	2.2.1, 2.2.2, 2.2.3	Desktop research	2.3, 6.1
3. How do the business customers of Datafisher Oy define the quality of eLearning services?	2.2, 2.3	In-depth interview: Q.2.1, Q.2.2	3.3.1, 4.1, 4.2, 6.1
4. What quality dimensions of eLearning services do the business customers of Datafisher Oy consider to be the most important?	2.2, 2.3, 4.1, 4.2	Survey: Q.4, Q.5	3.3.2, 5.1, 5.2, 5.3, 6.1
5. How can Datafisher Oy use the research findings to manage the quality of its eLearning services?	2.3, 4.1, 4.2, 5.1, 5.2, 5.3, 6.1		6.2, 6.3

Attachment 2. In-depth interview invitation letter

Dear Mr/Ms,

Datafisher Oy is conducting a research on how its Customers perceive the quality of eLearning services. As an outcome of the research we hope to get insights about how to measure and manage the quality of Datafisher eLearning services. The results will be used to improve our service offering to better meet the expectations of our Customers.

About the interview:

- We would kindly ask you to contribute to the first stage of the research by participating in the interview. The questions will focus on your company's / personal experiences of Datafisher eLearning services.
- *Our colleague XX (name)* will conduct the interview, which will be held in English and take one hour at maximum.

We would really appreciate your contribution to our research and wish to know if you are interested to take part in the interview. If you are willing to participate, what would be the best time to arrange it?

Kindest Regards,

[Name of the interviewer]

Attachment 3. In-depth interview questions

1. Overall experience of eLearning services

- What is your current position in the company?
- What experience do you have in relation to eLearning services? Do you have the experience of eLearning services?
- How many eLearning projects have you participated in?
- What were your roles/functions in the eLearning projects you have participated in?
- Do you have the experience of eLearning services delivered by different service providers?

2. Quality of eLearning services

2.1 General level

- What does good quality of eLearning services mean?
- What does poor quality of eLearning services mean?
- What are the factors that affect a decision to purchase an eLearning service from one or another service provider?
- What could be the drivers of the regular purchase of eLearning services from the same service provider?

2.2 Case company

- Do you find the quality of Datafisher's eLearning services is always satisfactory? Why yes or no?

End product

- How would you evaluate the quality of Datafisher's eLearning product? Is it satisfying? Why yes or no?
- What are you satisfied with in Datafisher's eLearning product? What are you NOT satisfied with?
- What do you think could have been done in another way or better? How?

- What expertise or competencies do you expect from Datafisher with regard to the developed eLearning product?

Service process

- How would you evaluate the quality of Datafisher's eLearning services process? (Planning, content development and implementation) Is it satisfying? Why yes or no?
- What are you satisfied with in Datafisher's eLearning service process? What are you NOT satisfied with?
- What do you think could have been done in another way or better? How?
- What expertise do you expect from Datafisher with regard to eLearning service process?
- What makes you feel assured that eLearning service will be delivered as it is expected? What makes you be sure that eLearning service will be delivered?
- How would you evaluate the participation of Datafisher's employees in eLearning service process?

Complaints

- Have you ever had any complaints about Datafisher's eLearning product and/or service process? What did the complaints relate to? Were you satisfied with the way these issues were addressed by the company?

Summary

- How would you describe an ideal eLearning service that you would like to receive?
- What in your opinion predetermines a successful performance of eLearning services? What in your opinion (may) helps to deliver eLearning services of good quality?
- Do you have any suggestions to Datafisher regarding how it could improve its eLearning product and/or service delivery process?

Attachment 4. Survey invitation letter

Dear Respondent,

You are invited to the survey conducted by a student of HAAGA-HELIA University of Applied Sciences in cooperation with Datafisher Oy. The purpose of this survey is to gather information about what the customers of Datafisher consider important when they receive eLearning services. Provided data will contribute to the quality improvement of Datafisher's service offering to better meet the expectations of its Customers.

The survey is anonymous and provided data will be treated confidentially. Questionnaire is in an electronic format and takes 5-10 minutes to complete. Please complete a questionnaire by August 19th, 2012. You can find a link to the survey below.

[LINK TO THE SURVEY]:

Thank You for Your contribution!

Kindest regards,

On behalf of Datafisher Oy

[Name of the thesis researcher]

HAAGA-HELIA student, DP in International Business

Attachment 5. Quality of eLearning services questionnaire

Quality of eLearning services

Welcome to survey!

1. What is your current position in the company?

2. Have you ever been involved in purchasing eLearning services and/or participated in developing eLearning solutions? If yes, which service provider have you cooperated with?

- ☐ Datafisher Oy
- ☐ Another service provider(s)
- ☐ I have never been involved in purchasing eLearning services or developing eLearning

3. How many times during the past year did you participate in purchasing eLearning services and/or developing eLearning?

- ☐ None
- ☐ 1-2 times
- ☐ 3 times
- ☐ More than 3 times
- ☐ Cannot say

4. Please rate on a scale from 1 to 5 the importance of the following statements about **the end product** when you receive eLearning services. 1 = very unimportant, 2 = of little importance, 3 = moderately important, 4 = important, 5 = very important.

	1	2	3	4	5	Have no opinion
Tangibles						

User interface is simple-in-use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course is quick-to-go-through	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course includes all range of media elements (video, music, animation etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course includes a variety of learning activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning activities are interactive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning activities are case-based	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course covers only essential material on a training subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course includes non-essential material on a training subject	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course is easy-to-administer by the customer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assurance						
Supplier has pedagogical background	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier has expertise in a field of eLearning application (e.g. expertise in marketing, finance etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier has previous experience in developing eLearning courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier is proficient in English language	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reliability						
eLearning course meets the set up pedagogical goal(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Media elements are defect-free	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning material is compatible with the customer's Learning Management System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Empathy						
Pedagogical solution is innovative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visual design of user interface is innovative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course is adjustable in a content-wise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
eLearning course offers to the user alternative learning tracks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Please rate on a scale from 1 to 5 the importance of the following statements about **the service process** when you receive eLearning services. 1 = very unimportant, 2 = of little importance, 3 = moderately important, 4 = important, 5 = very important.

	1	2	3	4	5	Have no opinion
Reliability						
Supplier implements eLearning project at the promised time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier implements eLearning project at the agreed price	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier implements eLearning project as agreed content-wise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assurance						
Supplier and customer have a similar project management approach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier possesses technical capabilities required to implement eLearning project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier provides the sufficient number of employees needed to implement eLearning project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsiveness						
Supplier understands customer's needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Supplier informs the customer about his/her roles and responsibilities during the eLearning project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier communicates to the customer the technical constraints of eLearning project before it is launched	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier provides feedback on the customer's vision of how eLearning course should be implemented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier develops the content of eLearning course in cooperation with the customer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier and the customer have face-to-face communication throughout the process of eLearning project implementation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier is available on the customer request (via email, on phone etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier resolves project-related problems cooperatively with the customer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier's employees demonstrate enthusiasm about the project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier adjusts defects or mistakes in eLearning course based on the customer's remarks and claims						
Supplier provides to the customer the orientation in eLearning course before it is launched	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier provides after-service support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Empathy						
Supplier is willing to talk with the customer about his needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Supplier suggests alternative training solutions to meet the set-up pedagogical goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier demonstrates flexibility to the project's time schedule on the customer request	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supplier timely informs the customer about possible changes in the initial project plan (e.g. budget, time schedule etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Do you have any other comments on the quality of eLearning services of Datafisher Oy or another service provider(s)?

Thank you for your participation!

Attachment 6. Open comments on the quality of eLearning services

“We got a version that did not work in the very beginning. So our own supplier had to work it overtime. The schedule was prolonged a lot of the original schedule.”

“We were not very satisfied with the process, but final result is good and functional. Also the extra work what Datafisher did was too expensive.”

“Very pleased with the product we developed with Datafisher.”

“Overall very pleased.”

“Datafisher provides a fresh visual look. All parts of the services must be included in the offer and in the offered price/total amount.”

“Datafisher has proved their flexibility and professional approach in several occasions. I cannot say the same about some other companies.”

[eLearning] should “work for anyone, regardless of the person’s computer skills.”

It is “essential to be able to define and measure the desired outcomes of eLearning, i.e. what has been achieved with eLearning investment.”

“Very pleased with the process and the end product. Very enthusiastic and professional staff [names of Datafisher’s personnel]. Thanks!”

“It is not common that everything happens like in this questionnaire.”