Conceptual Framework for eServices Monitoring in CRM Environments

Roumiana Ilieva[1], Delyana Gashurova[2]

Abstract: **The paper differentiates the concepts for quality and agility of eServices. The importance of eServices quality and agility measurement, their traceability and influence on CRM performance is explored. Monitoring of these components is presented as a better competitive power of organizations as well as optimization of values for the business units. The formulation of a conceptual model which has to be taken in consideration in eServices management is presented as a framework for achieving higher value for the customer.**

Index terms: **CRM, eService, quality, agility, mind mapping, conceptual framework**

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I. INTRODUCTION

Management of eServices has been gaining importance due to the expanding need of innovative solutions and growing demands of the business organizations (Anguelov K., I. Stoyanov 2013). Therefore the quality of services is under focus, acting as a main driver of customer's satisfaction. Considering the fact that clients can choose from a variety of service providers, the quality and agility of a service is what defines customers' retention. Implementation of CRM systems is a preferred method for delivering better customer value. The aim of such systems is to maintain close relationship with clients and strengthen the competitive and sustainable advantage of the services they provide. Yet, there is a lack of adequate response to business expectations for quality eServices

The purpose of this paper is to establish a conceptual framework for monitoring the quality and agility of eServices in a CRM environment

II. QUALITY OF E-SERVICES IN CRM SYSTEMS

Depending on the type of eServices, their quality can be interpreted in various ways. For example, eServices as Web based face to face e-governance systems are discussed in (Tsankova, R., Marinov, O., 2012) at the Social Media and Web Science forum for improving and democratization of the information administrative services and their management processes. The functions and architectures for the online face to face organized eGovernance systems are proposed and the pilot implementation of the Web based videoconference forms of collaboration as management meetings and educational events is presented, evaluated and discussed there. The legislative regalementation of the information administrative services is discussed in (Kaneva, N., Dimitrova, R., 2013).

Service quality is often understood as a result of customer perception. The difference between clients' expectations and the real performance is called disconfirmation, as accepted by several researchers (Grönroos, 1982; Parasuraman, Zeithaml and Berry, 1988; Bitner, 1990; Bolton and Drew, 1991; Gummesson, 1991; Oliver, 1993).

Based on disconfirmation paradigm (Figure 1) we can say that high quality is achieved when the real performance is equal or above the initial clients' expectations, meaning that service quality will be low when the actual experience is less than the expectations. Originating from Expectation-Confirmation Theory (Oliver 1980) the SERVIQUAL model was developed by (Parasuraman, Berry, Zeithaml, 1988).

The model is widely adapted for measuring the quality of wide range of industries and service categories. Some studies apply the model for measurement of service quality in areas like e-commerce, e-banking, e-retailing etc. SERVIQUAL presents service quality as a multi-dimensional concept consisting of five dimension.

1) Responsiveness - willingness or readiness of employees to provide service;

2) Reliability – ability to deliver service in the way and time frame agreed with client;

3) Assurance – ability of employees to create a feeling of competence, trustworthiness and confidence in a customer;

4) Tangibles – physical resources needed for providing a service;

5) Empathy – attitude and care for customer's needs.

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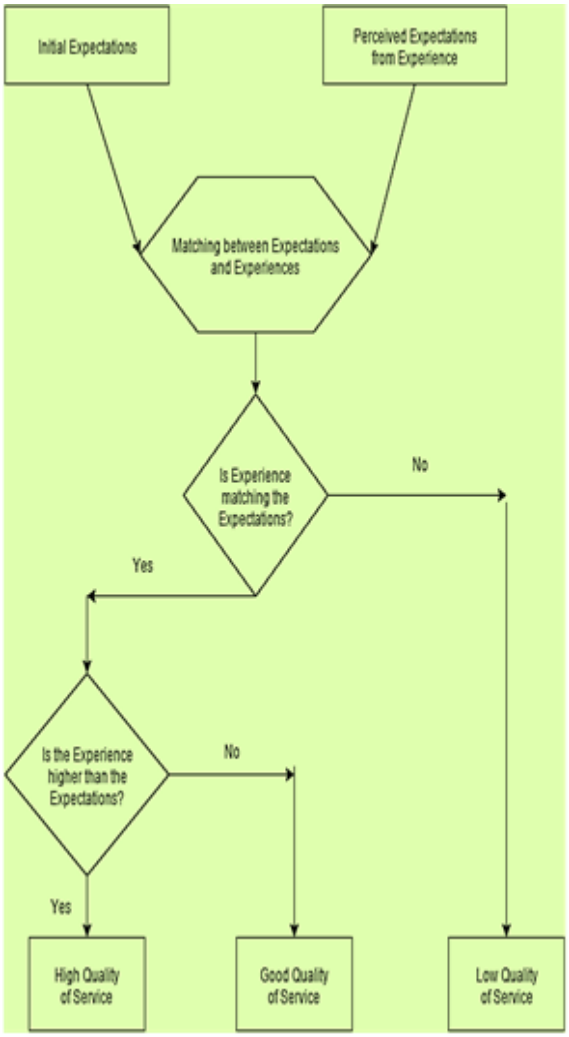

Fig 1. Disconfirmation paradigm

A novel investigation on Differential Evolution and Particle Swarm Optimisation with enhanced adaptability and Free Search applied to 200 dimensional versions of three scalable, global, real-value, numerical tests, which optimal values are dependent on dimensions number and virtually unknown for variety of dimensions is presented in (Penev, K., 2015).

In its turn, SERVIQUAL model applies 5 steps for evaluating quality of services (Service Quality Index – SQI). SERVQUAL instrument uses 22 questions evaluating the performance across the five determinants, using a seven-point Likert scale measuring both customer expectations and perceptions (Gabbie and O'neill, 1996). Positive results of SQI when evaluation of the service is greater than the expected one consider it as a high quality service.

III. Agility of e-Services

The concept for agility originates from the manufacturing area in the early eighties and was used for agile manufacturing and agile corporations (Izza, S. et al., 2008). Later on this concept extends to supply chain, ERP systems, information systems and IT sector. Despite the numerous researches on the topic, there is no clear definition how agility should be achieved or measured (Goleshevska, V., R. Ilieva, 2014). According to (Desouza, K. C., 2007) being agile is generally resulting in the ability to:

- ✓ sense signals in the environment,
- ✓ process them adequately,
- ✓ mobilize resources and processes to take advantage of future opportunities, and
- ✓ continuously learn and improve the operations of the enterprise.

In literature organizational agility is often described as the ability to adapt, respond to unexpected changes in environment. Agility is a strategic framework, combining external parameters and factors for dynamic adaptable capabilities of a company (Ismail H. et al., 2007). The framework examines the business environment with a number of factors for turbulence of the external environment and abilities for dynamic agility of processes, products, operations and the entire organization. As there is no specific taxonomy for agility of services, for the purpose of this paper the concept for organizational agility will be used.

Based on different frameworks and metrics for measuring organizational agility, the following definition of eService agility can be derived:

"Agility of an eService is its ability to correspond to the turbulent changes of the surrounding environment, the increasing competitiveness and the growing demands of clients, aiming a higher resistance and values to the customer".

To define a holistic model for monitoring the agility of eServices is a complex task, as there is no clear framework for achieving their agility. That is why in order to evaluate the agility of the eServices supported in CRM we can apply some commonly used metrics (Goleshevska, V., R. Ilieva, 2014) like:

1) Responsiveness of supporting personnel– Sharifi and Zhang (1999), Christian et al. (2005)
2) Competence (knowledge and capabilities of the supporting staff) - Sharifi and Zhang (1999), Lin et al. (2006)
3) Flexibility - Sharifi and Zhang (1999), Christian et al. (2001)
4) Speed of service - Sharifi and Zhang (1999), Bessant et al. (2001), Lin et al. (2006), Crocitto et al. (2005)
5) Variety of innovations - Bessant et al. (2001)
6) Quality of service - Crocitto and Youssef (2003)
7) Price of service - Crocitto and Youssef (2003)

IV. Mind Mapping the Concept of Organizational Agility

The Busan's mind mapping method is extremely creative (Buzan, T., Buzan, B., 2010). It allows us to roll out the logic

of our thoughts in a structured and universal way. It helps us to see the "big picture" or in other words, to look at information from a different angle using memorable characters (images, symbols, graphics), keywords, branches and twigs, which represent hierarchically arranged elements and the links between them. Figure 1 shows a mind map of the concept of organizational agility.

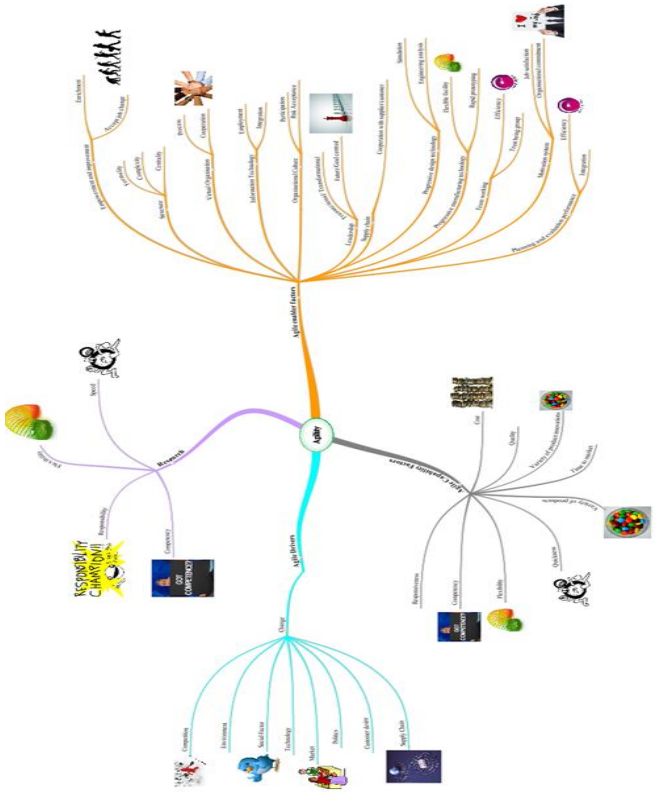

Fig 2. Mind mapping the concept of organizational agility

V. Conceptual Framework for e-Services Monitoring in CRM Environments

The purpose of this article is to examine the theoretical foundations of eService quality and develop a conceptual framework for it. Based on the discussed characteristics of eServices, the quality concept and organizational agility a conceptual framework for eServices monitoring in CRM environments has been derived in Figure 3.

Factors that act hierarchically as enablers of eServices' agility and quality are presented as fundamentals of the model in Figure 4.

The main enablers are:

- ✓ Staff motivation
- ✓ Speed of service and in-time reaction
- ✓ Willingness to help and support customers
- ✓ Knowledge and experience of support teams
- ✓ Innovation of services
- ✓ Infrastructure capabilities and technology innovations
- ✓ Interoperability
- ✓ Competitive cost of services

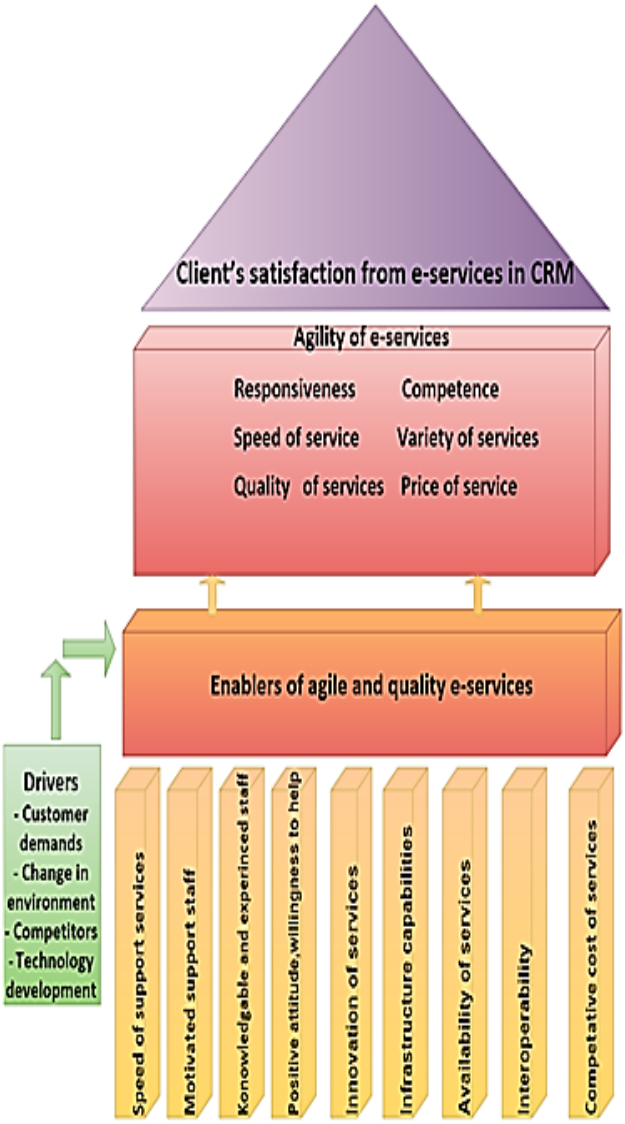

Fig 3. Conceptual framework for eServices monitoring in CRM environments

When the enablers interact with changes from external environment like growing customer demands and expectations, new technology trends and growing competitiveness, as a result we get a reflection in the metrics for agility and quality of eServices. The nine metrics that we have derived for agile and quality services give us framework for measuring and evaluating customers' opinions and impressions from the offered services.

VI. Conclusion

The development of methodologies, for measurements and predictions of eServices agility and performance is in its infancy.

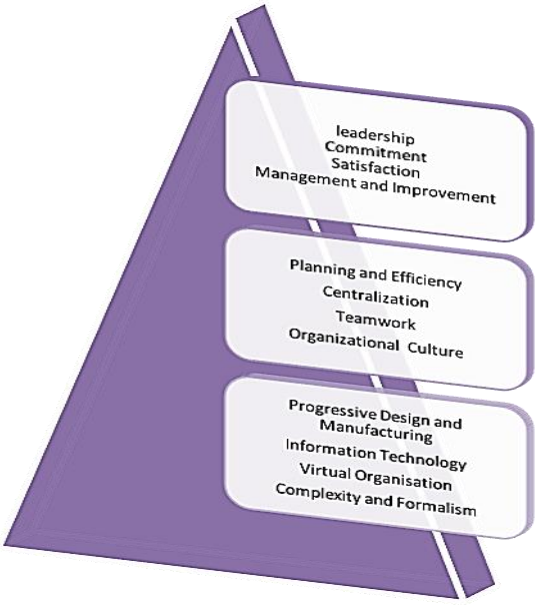

Fig 4. Hierarchical diagram of enabler factors of eServices' agility and quality

The lack of adequate definitions for quality and agility of eServices in scientific literature is a basic problem. Because of the complex structure of these terms, all proposed metrics for measurement of these two characteristics is not accurate enough. The created conceptual framework will help for better analysis of quality level of eServices in CRM as well as systems' behavior and their development. The framework defines the boundaries of the organizational ability to correspond to clients' demands and expectations through detailed monitoring of service quality and agility. As the interaction between customer and service provider is critical in eServices, traceability and evaluation of customer perceptions should be applied in a timely manner. Evaluation with the proposed model can be done via customer surveys, prepared for the specific eService area and processes that they serve.

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