



13th International Conference on Industrial
Engineering and Industrial Management

XXIII Congreso de Ingeniería de Organización

A large, abstract concrete sculpture with a central archway, set against a blue sky and green ground. The sculpture is made of dark, weathered concrete and has a curved, modern design.

Organizational Engineering in Industry 4.0

BOOK OF ABSTRACTS

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Industrial Management” and
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Closing Gap between New Development and Voice of Customer

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Keywords: New Service Development (NSD), DMAIC Six Sigma, Critical To Quality (CTQ), Voice of the Customer (VOC), Customer Satisfaction;

1 Introduction, Objectives and Methods

In today's technology-based business environment, service providers face significant challenges in remaining competitive by understanding customer priorities, and creating real customer value (Reindenbach & Gooke, 2006a). In the modern world, value at the point of production does not automatically equate to value at the point of consumption and value definition should not be internal, but driven by end-user (Reindenbach & Gooke, 2006b).

Considering the background of the problem, the goal of this research is to gain an understanding of the lifecycle of New Service Development (NSD), channeled through customer priorities by comparing the purchasing criteria of wholesale services against company processes: Which are the Critical to Quality (hereinafter CTQ) dimensions that drive customer satisfaction in the telecommunications wholesale industry? Which are the most CTQ activities in the Service lifecycle? And, once variables and activities are recognized, where are the gaps between the services developed by the company and the real Voice of the customer (hereinafter VOC)?

The methodological approach used in this research, Six Sigma's DMAIC, provides a systematic process and a business orientation to ensure that the service improvement activities are customer focused. In order to conduct this

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company-based study (Yin, 2009), two research paradigms are explored: Positivism and Interpretivism. For the researcher, the chance to observe as a member of the company, and produce subjective qualitative data, gives the study an interpretive characteristic. Additionally, this study follows an Abduction approach (Kakkuri, & Lukka, 2008).

4 Results and Conclusion

An initial contribution of this research is the application of DMAIC approach used to guide this research, providing a methodical and systematic framework that can be used by Telecom service providers seeking to develop more customer-focused processes. Previous research has contemplated the use of Six Sigma methodologies within manufacturing industries, but this research tries to explore a unique niche by shifting from a production approach to a service development process service, where little research is found (Alsmadi, Almani, & Jerisat, 2012). Finally, in an entrepreneurial context, this Sis-Sigma approach could help to reduce the risk that a new product, once developed, will not meet customers' needs and wishes (Wang FK-K, Yeh C, Chu TP, 2016).

The main results of this study is originated from the "As-Is" process maps, not only because process flows were drawn from the end user service's request, but also because drawing the layout and combining it with CTQ matrix allowed stressing the most critical-to- quality activities. Later in the research, the assessment of the CTQ matrix was constructed so as to measure the correlation of the activities described in the process map, with respect to the VOC prioritized criteria. The result of the correlation allowed locating most CTQ activities. Significant contributions are presented since the research provides an understanding of the impact of each process activity in a specific VOC requirement highlighting which activities are the most Critical to Quality (CTQ) and proposing improvement opportunities.

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