# TOTAL QUALITY CUSTOMER SATISFACTION MODEL

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**Abstract:** In today's business environment, all organizations are required to focus on their customers in order to fully understand their needs. There is a need to drive and engage strategic actions in order to close any potentials gaps between customer's expectations and manufacture's deliverables. Current customer satisfaction theory appears to be excluded from a holistic model that broadly covers the extent of customer satisfaction concept.

This article empathizes the need of an integrated customer satisfaction model that the organization can use as a strategic platform to increase sales, business performance, branding, market share, and customer loyalty, based on specific methodology that translates customer needs into a reliable business plan.

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#### Introduction

Customer satisfaction is a concept that has been broadly discussed in recent years from a very specific theoretical standpoint. Furthermore, customer satisfaction has been the center topic for Total Quality Management (TQM) and has been analyzed using a variety of research tools such as case study, case reports, and structural research among others. Previous researchers have identified the relationship between independent and dependent variables as customer satisfaction and business results, respectively. However, it is not clear how customer satisfaction model is conceptualized, since there are different models; moreover, they do not integrate variables such as sales, shares, profit, market participation, branding, and customer loyalty into a one single approach that covers and explains the foundation of customer satisfaction model towards business results and performance.

Customer satisfaction is directly related to a firm's strategic planning and business model. Therefore, the need of a Total Quality Customer Satisfaction Model (TQCSM) is needed, which supports and provides the appropriate tools to: 1) identify the voice of the customer, and 2) translate the voice of the customer into requirements (product, service and manufacturing specifications).

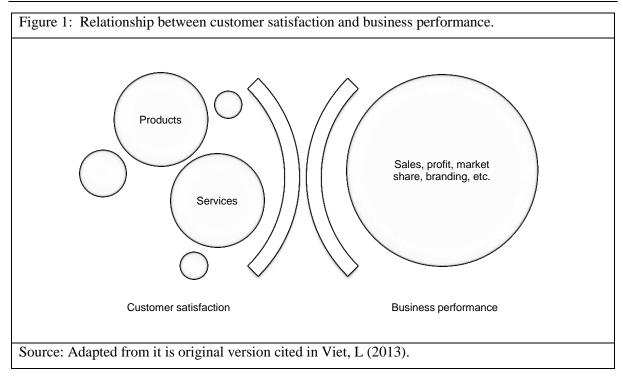
In today's business environment, characterized by technological edge, innovation and highly dynamic market competition, it is more important to develop tools for customer satisfaction that would help to understand customers and translate all their needs into a business strategic model. The main question is, "how can an entrepreneurial organization identify key variables of customer satisfaction in order to integrate it as a part of its business strategic model?" The answer is not simple and requires a full understanding of theory, practice, and market dynamics, in order to offer an integrated approach that can be customizable to the specific needs of an organization.

## Literature review

Customer satisfaction is related to business performance and organizational results, which take into account the key performance indicators (KPIs) such as delta of sales, market share, and branding, among other top of the list metrics. Viet (2013) identified that customer satisfaction is one of the key variables to business performance; however, it is not outlined the methods, tools or actions that need to be taken into account for the firm's strategic model. Figure 1 illustrates a generic relationship between customer satisfaction and business performance.

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In order to find all high-level methodologies that are covered under the umbrella of customer satisfaction, we have to conduct a robust research using knowledge databases such like: EBSCO, Emerald, Elsevier, and Springer. Key variables in this research include Kano model, SERVQUAL, Voice of the customer, Customer satisfaction, Critical to quality, Quality function deployment, Statistical process control, customer satisfaction index, and customer satisfaction model. Table 1 indicates the number of publications related to the main topic covered under the umbrella of customer satisfaction from 2010 to 2013.

It is important to highlight that 90 percent of the publications can be categorized into four main topics: 1) Customer satisfaction [CS], 2) SERVQUAL, 3) Statistical process control [SPC], and 4) quality function deployment [QFD]. Only less than 0.4 percent of the publication takes into account the integration of those tools into a model, in particular a model that can be synergized into a business's strategic model.

# **Total Quality Customer Satisfaction Model (TQCSM)**

According to Barsky (2003), organizations with highly satisfied customers will gain customer loyalty, which leads to better market participation. That is the reason why the concept of customer satisfaction should be taken into full consideration by any organization; customer satisfaction can be considered as a leveraging tool to better market competition. Figure 2 fully illustrates a conceptual diagram of the Total Quality Customer Satisfaction Model (TQCSM).

In the business environment, TQCSM can be integrated in two steps—passive and active. The passive step is related to fully understanding the voice of the customer using two main tools: Kano model and SERVQUAL survey. The active step takes into a consideration tools that helps and supports operations in order to perform consistently in manufacturing.

	Table 1:	Key variables research in 2010—2014 timef	frame
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Key variable	2010	2011	2012	2013	2014	Relevant references
Key variable	2010	2011	2012	2013	2014	
Kano model	405	562	610	348	1	(Adilia, 2012)
	2200	2020	4450	21.70		(Suerwein, 1996)
SERVQUAL	3300	3830	4170	2150	2	(Carauna, 2000)
Voice of the	982	1020	1070	541	2	(Van Der Hoben, 2013) (Chee-
customer [VOC]	902	1020	1070	341		Cheng, 2013)
Customer	23800	25000	24600	15800	48	(Sattari, 2012)
satisfaction [CS]						(Giese, 2000)
Critical to quality	411	496	512	260	0	(Li-Fei, 2012)
[CTQ]	411					(Anderson, 1997)
Quality function	2240	2620	2000	1.420	4	(Carnevalli, 2008)
deployment [QFD]	2240	2620	2800	1420	4	(Adilia, 2012)
Statistical process	2000	3130	1510	1880	5	(Lupo, 2013)
control [SPC]	3000	3130	1310	1000	3	(Fiedler, 2010)
Customer	1000	1250	1210	619	0	(Viet, 2013)
satisfaction index						(Kyung-A, 2013)
	1090					(Shun, 2004)
[CSI]						(Jyh-Bin, 2006)
Createmen	139	170	178	99	0	(Hsiu-Yuan, 2011)
Customer						(Hom, 2010)
satisfaction model						(Barsky, 2003)
[CSM]						(Cengiz, 2010)

Source: EBSCO, 2014; Emerald, 2014; Elsevier, 2014; Springer, 2014

Figure 2: An illustration of Total Quality Customer Satisfaction Model (TQCSM). QFD (Carnevalli, 2008) (Adilia, 2012) **CTQ Product** and services's CTQ's Sales, profit, market (Li-Fei, 2012) share, branding, Kano (Anderson, **SERVQUAL** etc. (Adilia, (Hsiu-Yuan, 2011) (Carauna, SPC & DOE 2012) 2000) (Hom, 2010) (Suerwein, (Lupo, 2013) (Barsky, 2003) 1996) (Fiedler, (Cengiz, 2010) 2010) Excellence in manufacturing Voice of the customer **Customer satisfaction** (Viet, 2013) (Van Der Hoben, 2013) (Sattari, 2012) (Kyung-A, 2013) (Chee-Cheng, 2013) (Giese, 2000) (Shun, 2004) (Jyh-Bin, 2006) Source: Adapted from Viet (2013)

### **Conclusion**

Customer satisfaction theory is totally aligned with Total Quality Management (TQM) that broadly covers a variety of topics, tools and strategies to enhance customer satisfaction. The main goal of this article is to identify the main methodologies, required to be fully considered, and the key variables to be integrated into Total Quality Customer Satisfaction Model (TQCSM). The empirical research

using various knowledge from web-based sources has led to identifying QFD, CS, CTQ, SPC, VOC, SERVQUAL and Kano model as relevant variables to be integrated into TQCSM. However, it is still unclear how these methodologies would interact interdependently, when taking into account the sequence of events that needs to occur, in order for the voice of the customer to be fully understood and translated into manufacturing with consistent execution.

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