THE IMPACT OF CUSTOMER FOCUS ON INNOVATION IN SERVICE ORGANIZATIONS

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ABSTRACT

This paper investigates the impact of customer focus on process innovation and administrative innovation in service organizations. The data were collected from service organizations in Malaysia. The organizations are from different service subsectors and different sizes. Confirmatory Factors Analysis (CFA) was used to confirm and validate the constructs included in the proposed theoretical model. Structural Equation Modeling (SEM) was used to test the hypotheses. Results of hypothesis testing revealed that customer focus has a positive impact on both process and administrative innovations in the surveyed organizations. This study added the perspective of service organizations to the debate about the relationship between customer focus and innovation. The findings of this study will help managers to positively linking customer focus practices with process and administrative innovation.

KEYWORDS*: Customer focus; Service organizations; Innovation in service; Process innovation; Administrative innovation*

1.0 INTRODUCTION

Customer focus is one of the main principles in many management systems models such as total quality management (TQM) system. Business organizations should consider customer focus as innovation driver (Voigt et al., 2011; Mustafa & Bon, 2012). Customer focus involves an organizational continual process that leads to identifying and satisfying customers' needs (Narver et al., 2004). Customer focus practices lead to innovation in service organizations (Mustafa & Bon, 2012; Bon & Mustafa, 2013).

The same importance of customer focus in service organizations goes to innovation. Intensified global and local market competition has determined the importance of innovation in service organizations as

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a source of competitive advantage (OECD, 2008). Organization for Economic Co-operation and Development (OECD) stated

> *"the importance of service innovation is well-established, but many firms are seeking new ways to develop the type of service innovation necessary for success in global value chains."*

Thus, process innovation and administrative innovation are important and crucial for competitiveness of service organizations (Damanpour et al., 2009).

Process innovation has been defined as

> *"the implementation of a new or significantly improved production or delivery method, this includes significant changes in techniques, equipment and/or software" (OECD,2008).*

Administrative innovation has been defined as

> *"New approaches and practices to motivate and reward organizational members, devise strategy and structure of tasks and units, and modify the organization's management processes" (Daft et al., 1978).*

Previous studies investigated the relationship between customer focus and innovation have reported contradicted results. Some studies found a positive relationship between customer focus and innovation while other studies found no positive relationship. Most of these studies were conducted in only manufacturing organizations or in both manufacturing and service organizations at the same time. Investigating the relationship between customer focus and process and administrative innovation in service organizations is still scarce (Mustafa & Bon, 2012; Bon & Mustafa, 2013). This study addresses the gap and tries to present the perspective of service organizations to the debate about the relationship between customer focus and innovation.

2.0 THEORETICAL FRAMEWORK WORK AND HYPOTHESES

Two views about the customer focus were shown here. The first view considered together the customer focus, competitor orientation and internal functional coordination (Narver et al., 2004). The second view considered customer focus as an element under management system such TQM system. Similarity in both views were that the customer focus targets satisfying the current and latent (future) customers' needs.

Some findings supported the positive relationship between customer focus on innovation while others supported the contrasting suggestion. The positive findings studied customer focus from perspective of firm performance (Sadikoglu & Zehir, 2010; Laforet, 2009), the relationship between TQM practices and innovation (Kim et al., 2012), the relationship between customer satisfaction and firm strategic orientation (Grawe, et al., 2009), the firm innovativeness and innovation capability (Perdomo-Ortiz et al., 2006; Fortuin & Omta, 2009), the influence firm competitive advantage (Pinho, 2008), the relationship between product performance and firm size, (Voigt et al., 2011) and the different types of innovation (Fredberg & Piller, 2011; Wong & Tong, 2012). While the contradicted findings studied customer focus from perspective of firm quality orientation (Leavengood & Anderson, 2011), the impact of TQM practices on innovation (Hoang et al., 2006), and the firm size (Govindarajan et al., 2011). Studies by Santos-Vijande and Álvarez-González (2007) and Martínez-Costa et al., (2008) found positive relationships between the customer focus and innovation. Hence, the positive findings trend is the main trend that characterized the relationship between customer focus and innovation.

Kim et al., (2012) found a positive empirical relationship between customer focus and both process and administrative innovations. Based on the trends of the literature and findings of Kim et al., (2012), the following hypotheses were developed:

H1: customer focus has a positive impact on process innovation.
H2: customer focus has a positive impact on administrative innovation

3.0 METHODOLOGY

Statistical Package for the Social Sciences (SPSS) was used for data screening, Confirmatory Factors Analysis (CFA) using AMOS Version 20 was used to run a measurement model to confirm and validate constructs of the proposed model, and Structural Equation Modeling (SEM) using AMOS software was used to test the hypotheses. Multiple goodness-of-fitness (GOF) indices were used to assess the measurement model (Hair et al., 2010; Awang, 2012). CHI-square (x^2 or CMIN) (acceptable value is $P > 0.05$), normed CHI-square (CMIN/DF) (acceptable range is 1.0 to 3.0), GFI (acceptable value is > 0.90), NFI (acceptable value is > 0.90), CFI (acceptable value is > 0.90), and RMSEA (acceptable range is from 0.04 to 0.08) were to assess the fit of data to the model (Hair et al., 2010).

The data were collected using questionnaire method. Measurement items were adapted from Kim et al., (2012) then pretested in a pilot study for more validity. Respondents of the study were top managers, executives and management members of 209 service organizations from different subsectors (e.g. Distributive Trade, Accommodation, Food and Beverages, Information and Communication, Financial Services, and Education) and different sizes (small, medium and large). Criteria of selecting the organizations were based on companies with ISO 9001:2000 certification, Malaysia's Quality Management and Excellence Award (QMEA) certification, or any other local or international quality management and business excellence award, and operation in Malaysia.

4.0 ANALYSIS AND RESULTS

4.1 Descriptive statistics

Table 1 showed the descriptive statistics of the three constructs (customer focus, process innovation and administrative innovation) which include means, standard deviations, skewness, and kurtosis values. All the calculated means was in a range of 2.0 to 4.0 and the standard deviation values are in a range of 0.2 to 0.9. The standard deviations were low compared to the mean values which implied that the mean of each item was highly representative of its data. Skewness and kurtosis values were found to be near the recommended acceptable normality of distribution ranging between +1.0 and -1.0 (Awang, 2012). Normality of data distribution is required by SEM (Hair et al., 2010).

Table 1. Descriptive statistics for all involved items

Item	Mean	St. Dev	Skewness	Kurtosis
Customer focus				
CF1	2.02	0.20	-0.29	-1.38
CF2	2.02	0.20	-0.29	-1.30
CF3	2.01	0.20	-0.22	-1.38
CF4	3.84	0.69	-0.69	0.97
CF5	4.07	0.68	-0.74	1.46
Process innovation				
PI1	3.62	0.92	-0.77	0.52
PI2	3.50	1.10	-0.82	0.05
PI3	3.81	0.79	-0.82	1.15
PI4	3.78	0.85	-0.74	1.00
PI5	3.63	0.89	-0.82	0.84
PI6	3.65	0.85	-0.84	1.01
Administrative innovation				
AD1	3.72	0.72	-0.70	0.95
AD2	3.91	0.79	-0.78	0.91
AD3	3.82	0.75	-0.52	0.64
AD4	4.13	0.81	-0.24	-1.43
AD5	3.25	0.90	-0.16	-0.27

4.2 Reliability analysis

Based on the recommendations of Field (2009), the Cronbach's alpha value is between 0.70 and 0.8 which indicate acceptable measurement items reliability and if the Cronabch's alpha is higher than 0.80, then it showed good measurement items reliability. Table 2 showed the value of Cronbach's alphas of the three constructs which were 0.98, 0.77, and 0.79 for the customer focus, the radical process focus and administrative focus respectively. It was pointed by Leech et al., (2005) that the item total correlation is "the correlation of the item with the total of other items in the scale" Item total correlation considered acceptable if its value was more than 0.3, having otherwise the item should be deleted or inspected for rewording. As shown in Table 3, all items total correlations were greater than 0.3 which present good rating of scale components. Any deleted item should have its Cronbach's alpha less than the overall construct Cronbach's alpha (Field, 2009). Thus, all the constructs were assumed to be reliable and would be used in further analysis.

Table 2. Reliability analysis results

Item	Overall Cronbach's Alpha	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Customer Focus	0.98		
CF1		0.58	0.96
CF2		0.67	0.97
CF3		0.56	0.97
CF4		0.53	0.97
CF5		0.51	0.97
Radical Process	0.77		
RPI1		0.61	0.71
RPI2		0.51	0.70
RPI3		0.50	0.71
RPI4		0.72	0.72
RPI5		0.40	0.71
RPI6		0.43	0.73
Administrative	0.79		
AD1		0.46	0.73
AD2		0.65	0.70
AD3		0.72	0.70
AD4		0.51	0.70
AD5		0.31	0.78

4.3 Respondents profile

Table 3 showed the 209 respondent characteristics to validate the questionnaires used in this study. Distributive trade, food and beverages and accommodation subsectors are the highest number of respondents (109, 62 and 19 respectively). Organizations with employees less than 50 present the majority of the respondents (80.86%).

Table 3. Respondents characteristics Profile

Subsector	Number of respondents	
Distributive trade	109	
Food and beverage	62	
Transport and storage	4	
Health and social work	3	
Information and Communication	2	
Accommodation	19	
Business service	1	
Financial service	3	
Construction, Architectural, and related services	1	
Education and training	5	
Total	209	
Number of employees in the organization	**Frequency**	**Percentage**
Less than 50	169	80.86
Between 50 to 150	21	10.04
Between 151 to 300	3	1.44
More than 300	16	7.66
Respondent's job title		
General Manager/ Vice Chancellor	34	16.3
CEO/ senior executive	51	24.4
Head/manager of Quality	34	16.3
Member of Management	90	43.1

4.4 Confirmatory factor analysis

Figure 1 showed the measurement model (or CFA model) for the three constructs under investigation namely customer focus (CF), process innovation (PI) and administrative innovation (AD). By applying the model fitting procedures, GOF indices showed acceptable values: CHI-square = 105.822 CMIN/DF = 1.826, GFI = 0.930, NFI = 0.981, CFI = 0.991, RMSEA = 0.063). Apart from GOF indices, the values to be considered in the measurement model using CFA in SEM where the Standardized Factors Regression Weights where if the factor loading was greater than 0.7, then it was considered good.

4.4.1 Assessing constructs validities in the measurement model

The construct validity was best shown by assessing convergent validity discriminant validity (Hair et al., 2010). Table 4 showed constructs convergent validly, which featured Average Variance Extracted (AVE) and Construct Reliability (CR). AVE value should be greater than 5 and CR should be greater than 0.7 as proposed by Martinez-Costa et al., (2008). All calculated AVE values and CR is shown in Table 4 formed a good constructs validity and hence be considered for further use in this analysis. The discriminant validity was assessed by comparing the Squared Interconstructs Correlation estimates (SIC) with the AVE of the construct as stipulated by Martinez-Costa et al., (2008). AVE of the constructs should be larger than their corresponding SIC factors. Table 4 showed the SIC of the three constructs presented in a term of correlations values. It is clear that there was no SIC value bigger than AVE value.

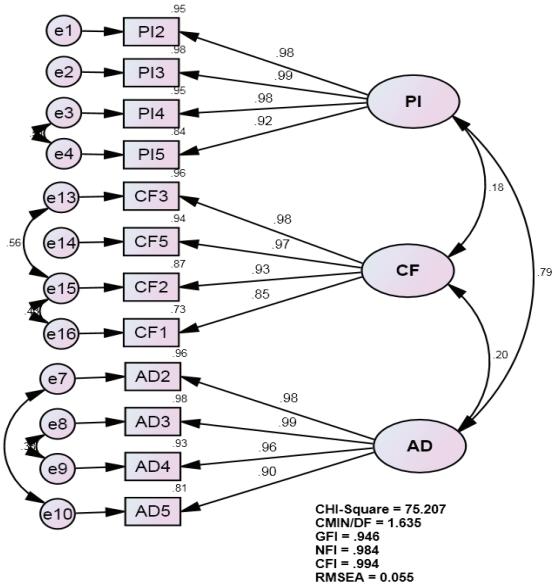

Figure 1. Measurement model

Table 4. Constructs convergent and discriminant validities

	CR	AVE	AD	PI	CF
AD	0.979	0.921	0.96		
PI	0.982	0.931	SIC = 0.62	0.97	
CF	0.965	0.875	SIC = 0.04	SIC = 0.03	0.94

4.5 Hypotheses testing

Table 5 showed the results of hypotheses testing in the structural model developed from the measurement model. By comparing the GOF indices between the SEM model and the CFA, the results showed no difference. Significant paths were shown to be between CF and both of PI and AD (Critical Ratio = 2.625 and 2.916 respectively). In other words, the two hypothesized relationships were supported. These findings supported the results of Kim et al., (2013) and Govindarajan et al., (2011). The findings were also supporting the trends of the research results as discussed in Section 2 of this work.

Table 5. Hypotheses testing

Hypothesis	Relationship	Estimate	S.E.	C.R.	P	Supported?
H1	PI <--- CF	0.181	0.069	2.636	0.008	*Supported
H2	AD <--- CF	0.202	0.069	2.916	0.004	*Supported

*p< 0.05 (two tailed)

5.0 DISCUSSION

The possible explanation of the positive impact of customer focuses on process innovation originated from the two categories of customers, namely the mainstream and emerging customers. Mainstream customers are the current customers while the emerging are expected future customers. If the focus is to satisfy the needs of mainstream customers,then it leads to both an incremental and radical process innovations. On the other hand, if the focus is to satisfy the emerging customers, then it tends to be less incremental innovation and most radical innovation in order to attract them (Govindarajan et al., 2011). The implication is that the surveyed organizations focus on both mainstream and emerging customers.

Another possible explanation was that the surveyed organizations tend to be proactive customer oriented. Proactive customer orientation produced radical process innovations while responsive customer orientation, on the other hand, produced incremental innovation as presented by Brettel et al., (2012). Both proactive and responsive customer orientations were part of the market orientation, which proved to have direct impact on different types of innovation (Bodlaj, 2009). Thus, the surveyed organizations were well market – oriented, which gave its positive outcomes in term of process innovation.

With regard to the positive impact of customer focus on administrative innovation, the possible explanation can be linked to the definition of administrative innovation, which was stated by Abernathy et al., (1978). as 'new approaches and practices to motivate and reward organizational members, strategy and structure of tasks and units, and modify the organization's management processes. In light of this definition, the customers' feedback lead to the administrative change. For instance, increasing in the number of customers in a particular place may motivate the organization to open a new branch or to extend the existing one which was an administrative innovation. Another example was that the customer recommendations could lead to initiate a new rewarding rules and the customer complains about employee could lead to innovate a new recruiting rules.

6.0 CONCLUSION

The impact of customer focus on process innovation and administrative innovation in service organizations was presented here. By using the survey questionnaire method, data were collected from 209 service

organizations that operate and doing business in Malaysia. The CFA was used to validate the measurement model and the SEM was used to test the hypotheses. The analysis of the surveyed data revealed that the customer focus has a positive impact on both the process and administrative innovations of the organizations. This study added the perspective of a service organization to the relationship between customer focus and innovation. The results will help managers of service organizations to use customer focus as an innovation driver.

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