SERVICE INNOVATION, FIRM LOCATION AND PRICING ORIENTATION OF SMEs AUTOMOBILE SERVICES

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ABSTRACT

This paper sought to investigate the relationship between service innovation, firm location and pricing orientation of the SMEs automobile service sector Ghana. Participants were selected from the SMEs automobile service firms. Data were collected from 272 firms based on willingness to participate. ANOVA was conducted to measure the entire hypothesized path; between service innovations, firm location and pricing orientation. The study found a statistically significant relationship between service innovation and pricing orientation and firm location and pricing orientation. Firm location did not have moderating significance in the relationship. This study has provided grounds of the relevance of innovations in the context of designing effective pricing orientations for SMEs service firm’s operational outcomes.

Keywords: Service Innovation, Firm Location, Pricing Orientation, SMEs, Automobile Services.

INTRODUCTION

The prevailing role of service economies and the emerging notion of service-dominant logic have shifted practitioner and academic’s attention towards the processes rather than the outcomes of organizational activities (Lusch & Nambisan, 2015; O’Cass et al., 2013; Jana, 2007; Vargo & Lusch, 2008). Customer experience and the ongoing satisfaction of their needs have become a reference point for balancing the implementation of continuous innovation and operational efficiency within Small and Micro Enterprises (SMEs) (Soosay & Hyland, 2008; Manu & Sriram, 1996). The wide deployment of technology-driven in the context of automobile services enables firms to maximize the visibility of innovative activities and achieve a direction of profitability through effective pricing orientations advantage (Bygstad & Aanby, 2010; Metcalfe & Miles, 1997). Bygstad & Aanby (2010) found that technology integrates components within the service production system of automobiles allows the tracking of collaborative processes that deliver expected outcomes. Thus, innovation represents a tool for recording routinized practices when producing and delivering automobile services (Barrett et al., 2015).

Innovation in services and the nature of service innovation impact remains a challenging issue within management research and practice (Salunke et al., 2013; Howells & Tether, 2004; Miles, 2001). According to Giannopoulou et al. (2014) research are progressing on an ongoing basis in an attempt to uncover managerial and theoretical issues related to the intangible aspects of processes as well as experiences that result from innovations. The direction of the impact of innovation in this context establishes leverage that provides defining pricing orientation systems for SMEs involved in servicing automobiles. Monroe (2003) and Hinterhuber (2000) have explained the importance of pricing orientation as a determinant of profitability and long-term
survival of firms. While the objectives of pricing determine the general focus for action, pricing orientations have been defined by Burkert et al. (2017) as the explicit stages or process by which organizations are resultant of customer value creation. A detailed literature review of services pricing orientation found different methods of pricing, categorizing them into demand-oriented, cost-oriented and competitive-oriented pricing methods (Liozu & Hinterhuber, 2013; Johansson et al., 2012; Schindehutte & Morris, 2001). Pricing in the (SMEs) service industry has proven not to be simple as argued by Keh et al. (2007). Especially, pricing of automobile servicing has not witnessed a lot of research to define an empirically supported theory for the industry (KanKam-Kwarteng et al., 2018). Specifically, the extent of influence of service innovation on the pricing orientation of the service providers in the industry has not seen a lot of theoretical development. Given the lack of empirical research, this research attempts to contribute to this neglected subject by researching the combined effects of service innovation and firm location the result in the pricing orientation of SMEs automobile servicing firms.

LITERATURE REVIEW

Theoretical Background

The theoretical proposition of the study is based on the Competence Based Theory (CBT). Competence refers to the capacity of a firm to deploy its resources and ensure their combination with the aim of achieving organizational goals. (Freiling et al., 2008; Grewal & Stolegraaf, 2007; Colombo & Grilli, 2005; Collis, 1994). The question of coordination of the resources is a major issue insofar as it enables a better operationalization of strategies (Lado & Wilson, 1994). Internal resources are not the only roots for firm-specific competence (Teece et al., 2007; Freiling, 2004; Hafeez et al., 2002). Following the assertion that firms are open boundaries system, firm addressable resources (Heller et al., 2006) and relational competence (Foss & Knudsen, 2013) are also necessary to attain the objectives. Building on this theory, the combined effects of the innovation capabilities and the assessment of the importance of location in achieving a suitable pricing orientation of the industry are assumed to be influenced by the competence level of the service operators.

Service Innovation and Pricing Orientation

Innovation research has received a lot of attention in the SMEs service sector (den-Hertog, 2010; Bessant & Tidd, 2007; de-Jong et al., 2003) as it has been considered an important driver of the firm’s operations, competitiveness and critical for growth (Cainelli et al., 2006; Kunttu, 2013). Innovations in SMEs have generally been estimated from a wide dimension which has been described as the processes of implementing problem solving ideas into use (Damanpour & Schneider, 2006), to an outcome-oriented views which has also been considered as the processes where ideas are transformed using economic activities into a more sustainable value creation outcomes (Livingstone, 2000). Innovations, therefore, showcase newness with additional value than being a good idea. As explained by de Jong et al. (2003), services innovations involve the development of service offerings that are new to the firm (Johne & Storey, 1998). Van-der-Aa & Elfring (2002) posited that innovations in service consist of ideas, practices or objects that are new to the firm and the relevant market. On the part of Menor et al., (2002) services innovation encompasses services offering not previously available to an organization’s clients resulting firm inclusions of changes in the service concept. Innovation in service is considered as the value creation activities (Amit & Zott, 2012). Service providers
assumed that innovations in service in this way that permits them to serve their consumers immediate and future requirements which contributes to their perceived value are what form an organization’s competitive advantage (Teece, 2010). According to Tether & Metcalfe (2001) innovations in services transform the nature of consumer’s perceptions (de-Jong et al., 2003). This effect adds to the consumer’s perceptions of the value of the offering, as has been suggested in other findings (Amit & Zott, 2012; Komulainen et al., 2004; Flint et al., 1997). The views of innovations in service as one that contributes to the perceived value of the service is significant, as it recommends and emphasizes the interconnection between services innovation, perceived consumer value and the nature of pricing orientation of the firm.

Dimensionalities in a firm’s Innovativeness, as the first component of service innovation, is defined as positioning strategically and resource allocation decisions, which is organized in meeting firm operations (Davila et al., 2004). It consists of the decisions by which industry or technology best matches organizational objectives to deliver value and to build a competitive advantage (Taghizadeh et al., 2016; Tidd & Bessant, 2009). According to the extant literature, within the perspective of service innovations, variation in pricing orientations depend on the organization’s overall strategy (Owen & Trzepacz, 2002) and decisions about setting a price required by a firm to design innovation strategies (Vandermerwe, 2003). The standard practice of innovation strategy is to continuously improve existing service through the implementation of upgraded information about dynamic consumer’s needs, in addition to implementing market-driven unique services (Ingenbleek et al., 2010). Therefore, researchers have argued that firms must collect required information about the level and the type of pricing those customers would prefer before a pricing decision can be made with the adoption of a multifunctional process in pricing orientations (Ingenbleek et al., 2010). Since, innovation strategy consists of forecasting techniques to predict future opportunities and threats (Tidd & Bessant, 2009), it can assist service operators in appreciating customer’s perceived value and in estimating current pricing orientations of firms. Based on these considerations, the current study hypothesized that:

H1: service innovation has a statistically significant relationship with pricing orientation in the SMEs automobile service sector.

**Firm Location and Pricing Orientation**

Firm location has been found in extant literature as an important factor of small business development which may include the closeness to material suppliers, accessibility to businesses premise, good road networks and business of the area of the firm (Van-den-Berg & Braun, 1999). Ilian & Yasuo (2005) posited that location involves the choice mode of moving into a business. In the SMEs automobile servicing industry in Ghana, firms are located in clusters and singles points locations (KanKam-Kwarteng et al., 2018). Sridhar & Wan (2010) have also observed that location as a selection of where a firm is to be sited which could be large, medium, small cities or rural or urban locations. This observation according to Lafuente et al. (2010) refers to the business location as a selection of a site in the urban or rural center which also relate with the nature of service the organization is offering. Previous studies have identified that there is a link between firm location and pricing orientation (Freeman et al., 2012; Guimaraes et al., 2003). Dewan et al. (2000) found that decisions on firm location influence pricing orientations. The relationship between firm location and pricing has also been supported by (Chen & Iyer, 2002) and demonstrated that firms choose prices that are dependent on location. Minai & Lucky (2011) found that firm location is an important factor that determines and shapes the failure or
success of growth and business activities. Based on the significant contribution of firm location in business operations, the study hypothesized that:

H2: Firm location has a statistically significant relationship with pricing orientation in the SMEs automobile service sector.

Firm Location and Service Innovation

Management researchers have considered in previous studies the relationship between firm location and pricing orientation (Cantwell & Zhang, 2011; Mudambi, 2008; Howells, 2002). As important as, or more important than, their benefits in current business operations are the role of location in innovation and productivity growth (Porter, 2000). Cluster location offers many potential advantages in innovation and upgrading compared to an isolated location (Baptista & Mendonça, 2010). Beaudry & Swann (2009) posited that firm location characteristics that enhance contemporary business operations are even more important to innovation. Firms within a cluster location often can more clearly and rapidly perceive customer needs. Just as with current customer needs, firms in a cluster location benefit from the concentration of firms with customer knowledge and relationships, the juxtaposition of firms in related industries, the concentration of specialized information-generating entities and client sophistication. Cluster located firms often can discern client trends faster than can isolate competitors (Herrera & Nieto, 2008). Based on the assessment of the relationship between firm location and innovations, this study hypothesized that:

H3: Firm location will moderate the relationship between service innovation and pricing orientation in the SMEs automobile service sector.

METHODOLOGY

Sample

The population and target respondents were selected from among the numerous Small and Micro Enterprises (SMEs) automobile servicing firms in Ghana. 300 participants were selected from automobile services firms based on willingness to participate. In all, 272 questionnaires were returned, screened and used for the analysis. The use of 272 for the analysis is supported by Hair et al. (2010) when the population is considered infinite. A regression analysis was performed using SPSS to determine the coefficient of the paths defined in the models.

Questionnaire and Measurement Scale

The questionnaire used for this study was developed in line with the available literature and the operational framework of the automobile services industry. The questionnaire included items generated for the three variables. The dimensional reliability of service innovation and pricing orientation from 0.75 to 0.90 which exhibits high reliability and validity. The scoring for service innovation and pricing orientation relied on a five-point Likert scale.
**Service innovation scale**

The scale consisted of 6 items that measured the influence of service innovation based on Agyapong et al. (2016) and Kankam-Kankam et al. (2018) construct used in similar studies. The items included the capacity to apply appropriate processes to service; ability to adapt service and process to meet future needs; ability to respond to unexpected opportunities; skills in offering a service; ability to support and drive innovation in the SMEs automobile services sector.

**Firm location-scale**

The scale for measuring the influence of firm location in the relationship between service innovation and pricing orientation has been summaries into two main variables based on Furman (2003) assertion of location of firms: (1) location in clusters (Baptista & Mendonça, 2010; Beaudry & Swann, 2009) and (2) single point or isolated location.

**Pricing orientation scale**

The scale consists of 8 items to measure the pricing orientation. The items were categorized into four components based on previous studies by Monroe (2003) and Hinterhuber (2008). It includes four dimensions: (1) Value-oriented pricing; (2) Cost-oriented pricing; (3) Competition-oriented pricing; (4) Demand-oriented pricing. Two items were generated for each component.

**Control variables**

The study controlled for two important internal possibilities; the period firms have existed (firm age) (Donkor et al., 2018) and the firm’s categorization of customers (voluntary patronage and involuntary patronage). Firm age was operationalized in the study as the period that the firm has existed. Categories of customers were defined as voluntary and involuntary patronage and were coded in the questionnaire as voluntary patronage ‘1’ and involuntary patronage ‘2’.

**RESULTS**

Descriptive statistics and correlation coefficient for the research variables are exhibited in Table 1. In the correlation matrix, the dependent variable and the control variable demonstrated that there was no cause for concern, after a preliminary check of multicollinearity. This is because all the coefficients of the correlations of the independent variables and the dependent variable show there is no concern for the regression analysis. Service Innovation (SERVI) recorded mean score=4.18 and SD=1.71. Also, the Firm Location (FIRLOC) recorded a mean score=2.15 and SD=0.84. Descriptive results of the Pricing Orientation (PO) shows mean score=4.58 and SD=1.67. The outcomes of the relationship between the study variables are reported in table 1. As it is shown in the table, there is a statistically significant connection between SERVI, FIRLOC and PO. Thus, the values of SERVI, FIRLOC show a strong relationship with PO, 0.809 and 0.769 respectively, while the control variables; firm age and customer category show a weak relationship with PO, indicating -0.125 and -0.019 respectively. A confirmatory test was conducted using Variance Inflation Factors (VIF) values.
The correlation results reveal that SERVI has a strong positive relationship with PO (r=0.809; p<1%). Similarly, SERVI is shown to have a strong significant positive correlation with FIRLOC (r=0.779; p<1%). Meanwhile, Table 2 also shows that FIRLOC has a strong positive relationship with PO (r=0.769; p<1%). However all the control variables have a weak significant relationship with PO (dependent variable); Firm age (r= -0.125; p<1%) and customer category (r=0.019; p<1%) and the two control variable do not also correlate at (r=0.095; p<1%). In the regression models of this study, the tolerance estimates of the variables were all above 0.10. Considering the fact that tolerance values below 0.10 exhibits a serious problem (Hair et al., 1995), it can be stated that no substantial multicollinearity within the data was recorded of our regression models.

Model Estimation and Hypothesis Testing

The Hierarchical Multiple Regression (HMR) technique was used to estimate the relationship between Service Innovation (SERVI), Firm Location (FIRLOC) and Pricing Orientation (PO). Model 1 focused on direct effects of the control variables such as firm age and customer category on PO. Model 2 examines the effect of SERVI on PO with the inclusion of the control variables. In Model 3 firm location is added to the variables in model 2 to determine the incremental effect of FIRLOC on PO. Model 4 involved estimating the effects of SERVI and FIRLOC on PO. The fitness of the models is examined using F-statistics, R-square and R-squared change. The results of the regression analysis are presented in Table 2.

### Table 1
PEARSON PRODUCT MOMENT CORRELATIONS

<table>
<thead>
<tr>
<th>Variables</th>
<th>PO</th>
<th>Firm age</th>
<th>CusCat</th>
<th>SERVI</th>
<th>FIRLOC</th>
<th>Mean</th>
<th>SD</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.58</td>
<td>1.67</td>
<td>1.024</td>
</tr>
<tr>
<td>Firm age</td>
<td>-0.125**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td>2.64</td>
<td>0.61</td>
<td>1.024</td>
</tr>
<tr>
<td>CusCat</td>
<td>-0.019**</td>
<td>0.095*</td>
<td>1.000</td>
<td></td>
<td></td>
<td>1.66</td>
<td>0.47</td>
<td>1.010</td>
</tr>
<tr>
<td>SERVI</td>
<td>0.809*</td>
<td>-0.118**</td>
<td>-0.027**</td>
<td>1.000</td>
<td></td>
<td>4.18</td>
<td>1.71</td>
<td>2.549</td>
</tr>
<tr>
<td>FIRLOC</td>
<td>0.769*</td>
<td>-0.114**</td>
<td>-0.039**</td>
<td>0.779</td>
<td>1.000</td>
<td>2.15</td>
<td>0.84</td>
<td>2.548</td>
</tr>
</tbody>
</table>

Notes: n=272. p<0.05*, p<0.01**.

### Table 2
HIERARCHICAL LINEAR REGRESSION RESULTS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta (T-values)</td>
<td>Beta (T-values)</td>
<td>Beta (T-values)</td>
<td>Beta (T-values)</td>
</tr>
<tr>
<td>Constant</td>
<td>5.518 (10.110)***</td>
<td>1.015 (2.663)***</td>
<td>0.697 (1.952)***</td>
<td>-0.060 (-0.102)***</td>
</tr>
<tr>
<td>Firm age</td>
<td>-0.124 (-2.046)</td>
<td>-0.030 (-0.838)</td>
<td>-0.023 (-0.690)</td>
<td>-0.025 (-0.742)</td>
</tr>
<tr>
<td>Customer category</td>
<td>-0.007 (-0.116)</td>
<td>0.006 (0.166)</td>
<td>0.012 (0.351)</td>
<td>0.006 (0.169)</td>
</tr>
<tr>
<td>Service Innovation (SERVI)</td>
<td>0.806 (22.322)***</td>
<td>0.533 (10.030)***</td>
<td>0.689 (6.334)***</td>
<td></td>
</tr>
<tr>
<td>Firm Location (FIRLOC)</td>
<td></td>
<td>0.351 (6.614)***</td>
<td>0.559 (4.075)***</td>
<td></td>
</tr>
<tr>
<td>SERVI X FIRLOC</td>
<td></td>
<td></td>
<td></td>
<td>-0.347 (-1.639)</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.016</td>
<td>0.656</td>
<td>0.704</td>
<td>0.707</td>
</tr>
<tr>
<td>ΔR-Square</td>
<td>0.016</td>
<td>0.64</td>
<td>0.048</td>
<td>0.003</td>
</tr>
<tr>
<td>F-statistic</td>
<td>2.141**</td>
<td>170.157***</td>
<td>158.913***</td>
<td>128.471***</td>
</tr>
</tbody>
</table>

SERVI: Service Innovation, FIRLOC: Firm Location, p<0.01**.
In model 1, the two control variables; firm age and customer category explain (R²=0.016) 1.6% of the variance in the PO and they do not have a significant effect on PO; firm age (β= -0.124; p=0.42) and t-value (-2.046). Customer category (β= -0.007; p=0.908) and t-value (-0.116). Thus, the control variables in model 1 have no significant relationship with PO.

In model 2, (SERVI) was added to model 1 as an independent variable. SERVI and the two control variables altogether explain (R²=65.6) 65.6% of the variance in the PO. Although the control variables in Model 2 do not have significant relationship with PO, firm age (β= -0.030; p=0.403) t-value, (-0.838) and customer category (β=0.006; p=0.868) and t-value (0.166), SERVI recorded (β=806; p=0.000) and t-value (22.322).

In Model 3, the moderating variable, FIRLOC is included in the model. In model 3, it is observed that the control variables (Firm age, customer category), SERVI and FIRLOC altogether explain (R²=70.4) 70.4% of the variance in the PO. While SERVI (β=0.533; p=0.000) t-value (10.030) and FIRLOC (β=0.351; p=0.000) t-value (6.614) have a significant effect on PO in the Model 3, the two control variables (Firm age, customer category) do not have a significant relationship with PO.

In Model 4, SERVI and FIRLOC were incorporated and included in model 4 to determine the effects of the moderating function. All the variables jointly explain (R²=70.7) 70.7% of the variance in the PO. Thus model 4 shows the best fit to the data, recording the highest R-squared value. The results suggested that the interaction of FIRLOC does not influence the relationship between SERVI and PO (β= -0.347; P=0.102) t-value (-0.1.639). Thus the hypothesis which states that FIRLOC moderates the relationship between SERVI and PO is not supported. Meanwhile, the change in R-square results indicated that the interaction of SERVI and FIRLOC accounted for only 0.42% (0.003/0.707*100) of the total predictive power of the model and explained 0.3% of the total variation in the overall PO of the SMEs automobile servicing sector.

The effect of SERVI on the PO (β=0.689; p=0.000) and t-value (6.334) was found to be significant and positive according to model results. Thus, Hypothesis 1 which states that SERVI has a positive effect on PO is supported. The relationship between SERVI and FIRLOC was significant with (β=0.351; and t-value (6.614). This confirms that FIRLOC has a significant positive relationship with SERVI. Also, the results of the final model indicated that FIRLOC has a strong positive influence on the PO (β=0.559; p=0.000) t-value (4.075). Therefore hypothesis 2 which states that FIRLOC has a strong positive effect on PO is also supported. Therefore, according to the findings of the hierarchical regression analysis, hypotheses H1 and H2 are accepted and H3 is rejected.

DISCUSSION AND CONCLUSION

This research advances the understanding of the means in which SMEs service providers can appreciate and use Service Innovation (SERVI) and Firm Location (FIRLOC) to better influence Pricing Orientation (PO). The research has gained evidence to support the hypothesis that there is a significant positive relationship between SERVI and PO, therefore confirming the findings of Owen & Trzepacz (2002). SERVI can thus be used to support strategic PO of the SMEs automobile servicing firms in Ghana. For the firms in the industry, FIRLOC can enable them, for example, to extensively design effective PO. The relevance of location in business operations thus supports findings by Dewan et al. (2000), Chen & Iyer (2002), Furman (2003) and Minai & Lucky (2011). This is important in the Ghanaian small business sector where a high level of operational dynamism characterizes the business environment. The study findings also
contribute to the Competence Based Theory (CBT) on the significant relationship between SERVI and PO which has not been widely reported in the literature. The combined effects of internal resources have been found in previous studies as significant in CBT (Grewal & Stolegraaf, 2007; Freiling, 2004). This result enhances the findings that PO can be influenced by service innovation capabilities (Shoemaker & Mattila, 2007). The results also contribute to the literature on SERVI by additionally exploring the moderating role of FIRLOC in the relationship that exists between SERVI and PO. More specifically, even though the study findings, does not support the moderating effects of FIRLOC in the relationship between SERVI and PO, its linear effects on PO has been established. Clearly, extensive research on FIRLOC can realize its significant contribution to the operations of SMEs service firms.

LIMITATIONS AND FUTURE RESEARCH

The study findings have some limitations. This should be addressed by future researchers. First, like many other studies, this research used a simple cross-sectional approach that creates gaps regarding causes and effects available to further explanations. For instance, the study suggests that PO of service firms is influenced by SERVI. This obviously calls for a lot of questions, considering the nature of operations of the SMEs automobile service industry. Moreover, our FIRLOC measure asked about only two items. The study examined FIRLOC as a predictor of PO; however, another possible explanation is that SERVI can moderate the relationship between FIRLOC and PO. To enhance our appreciation of the causal effects of SERVI and FIRLOC on PO, the study could have been longitudinal to provide enough periods to observe PO outcomes and improves the accuracy of the cause-effect analysis of the results (Chakravarthy et al., 2003).

Second, the data gathered from a developing country context, namely, Ghana, leave the result of the research context specific. For instance, there is the difference between Ghana and other countries in the developing world, such as the nature of operational standards, regulatory frameworks and pricing orientations. The difference may limit the generalizability of the study conclusions. The researchers, therefore, recommend that the study is replicated in other developing environment and other SMEs industries.

REFERENCES


