# Measuring the Performance of Automobile Services Sector in Ghana: A Pricing Orientation Approach

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**Abstract**

This study examines the role of pricing orientation in firm performance – focusing on specific components such as value-oriented pricing, cost-oriented pricing, competition- oriented pricing, demand-oriented pricing and customer oriented pricing. The study sample comprised of Small and Micro Enterprises (SMEs) automobile services firms in Ghana. 498 firms participated in the study. A hierarchical regression was conducted to estimate the paths between pricing orientation and firm performance. All the pricing orientation components; value, cost, competition, demand, and customer oriented prices were found to have positively and statistically significant effects on the outcome of the firm performance. Some limitations of the study were identified, and areas for future studies have been duly provided to aid the continuous research into the operations of SMEs automobile services industry.

**Keywords:** Pricing orientation, Firm performance, Small and Micro Enterprises (SMEs), Automobile services

## Introduction

Previous research on firm performance has recognized the significant role of pricing orientations. According to Sousa, Lengler, Martinez (2014), the degree of pricing orientation sometimes has a positive relationship with the level of performance of firms. However, Tan and Sousa (2011) show that the effects of pricing formation on the performance of businesses are contradictory and often inconsistent. A notable explanation of the situation is that the relationship between firm performance and adaptation of pricing orientation is nonlinear (Ozsomer & Simonin, 2004). A similar opinion is also

posited by Dow (2006) that the conflicting empirical results in previous studies may be as a result that the link between firm performance and pricing orientation is an inverted shape and not linear. Dow (2006) stated that there seems to be an optimal point of marketing strategies adaptations to increase performances of firms. If firms move from their optimal amount of pricing adaptation, the performances may decline. Management researchers have recommended that neither complete standardization nor a complete adaptation of the marketing programs is imaginable (Cavusgil, Zou & Naidu, 1993). Beckert (2011) stated that the appreciation of pricing orientation adaptation required is significant because of the direct effects that pricing adaption has on the company's revenues and profitability levels. Sousa and Bradley (2009) suggested that even with its critical significance in describing the performances of firms, pricing has been the most neglected element compared with other variables in the marketing mix. Significantly, Sousa and Bradley (2009) posited that continuous research is required on firm performance and pricing adaptation. This is more important since the framework of the results in previous studies regarding the effect of pricing orientation on SMEs performance is often contradictory literature. The lack of consistent outcome in the findings might be attributed to the lack of precision when identifying the nature of the relationship between pricing orientation and firm performance. Ozsomer and Simonin (2004) believe that although pricing orientation and SMEs performance are considered to have a linear standardization of programs in marketing and performance of firms, and that this requires to be taken into account when estimating the pricing orientation and firm performance relationship. The current study on the SMEs automobile service industry, therefore, is based on specific areas of pricing orientations including value-oriented, cost-oriented and competition oriented (Ingenbleek et al. 2003; Hinterhuber, 2004; Liozu & Hinterhuber, 2013), and demand-oriented, customer-oriented pricing (Monroe, 2002).

## Literature Review

### Value-Oriented Pricing

Value-oriented pricing has been described in the literature as a superior value to the sacrifices incurred by the consumer of a service. There is a financial sacrifice which is translated by the price to be charged or paid actually by the client (Juran & De Feo, 2010; Porter, Ketels & Delgado, 2007). Higher value dimensions represent offers for the customers which acceptably increase the values than those provided by competing firms (Payne & Frow, 2014). Value-oriented pricing has again been conceptualized as a pricing formation in which the service provider makes decision attributed to the perception of gains from the service being provided to the client and how the gains are assumed and weighted by the clients about the price paid

(Ingenbleek, Frambach & Verhallen, 2010). Liozu (2013) explains that pricing according to value components is a more contemporary approach to pricing. Ingenbleek, Frambach, and Verhallen (2003) observe that value-oriented prices result in high performance of the services and the business as a whole. The authors showed that the application of the value-oriented pricing is a core pricing operation for achieving returns and for generating some comparative advantage for the offers provided by the enterprise. Based on the discussion, the study proposes that;

*H1: Value-Oriented Pricing has statistically positive significant effects on the performance of SMEs auto service sector*

**Cost-Oriented Pricing**

Cost-oriented price has been considered in the literature as the most commonly used pricing orientation because it involves a set of financial prudence (Töytäri, Rajala & Alejandro, 2015). This carries an additional profit margin on cost, such as including standard percentage contribution margins to the services. Total costs are estimated by add fixed cost and variable cost then the organization's objectives towards profits are considered to finally determining the price of the service (Shin, Sudhir & Yoon, 2012). Pfeiffer, Schiller, and Wagner (2011) found that there is a bigger focus on setting pricing base on costs in modern business operations. Thus, this pricing orientation motivates firms to implement better expenditures modules. Again, Liozu et al. (2014) explain in a comparative study on SMEs found that more companies base their pricing on cost and implement cost models which use contributions and profits margin objectives to determine their pricing. Based on the analysis of the significance of cost-oriented pricing, the following study hypothesized that:

*H2: Cost-oriented pricing statistically positive significant effects on the performance of SMEs auto service sector*

**Competition-Oriented Pricing**

Competition-oriented pricing considers information from competitors pricing level and also expectations, as observed in real competition to design a suitable pricing level by the enterprise (Liozu & Hinterhuber, 2012). This approach according to De Toni et al., (2017) considers the actual price framework of competitors. Liozu, Boland, Hinderbuber, and Perelli (2012) have also found that firms using prices according to competitors contribute to margin objectives and well-structured profit intentions. However, Fisher, Gallino and Li, (2017) believe that competition oriented pricing approaches are riskier because the firm may not have profit or cost information about its competitors who may be operating with lower margins. Also, firms in such highly competitive environments information on pricing from rival firms may

come too late to be considered relevant (Ingebleek et al., 2010). Based on the discussion on the significant contribution of competition oriented pricing, the following research hypothesis is stated:

*H3: Competition-oriented pricing has statistically positive significant effects on the performance of SMEs auto service sector*

**Customer-Oriented Pricing**

Previous studies on pricing orientations have established customer-oriented pricing as a price based on customer willingness to pay (see; Juran & De Feo, 2010; Monroe (2001). Mazumdar et al., (2005) posited that customers apply both prior expectation and contextual information when determining reference prices, resulting in multiple dimensions and conceptualization, including predictive expectations (Yi & La, 2004) fairness or normative expectations (Bolton & lemon, 1999; Xia et al., 2004). This, according to Bahl, Black and Sherwood (2011) is done by assessing the point at which the customer is able and willing to pay. In this context, it is estimated that the performance of SMEs automobile services firms can be based on a pricing formation capturing the customer willingness to pay. Based on the discussion above, It can be hypothesized that:

*H4: Customer-oriented pricing has statistically positive significant effects on performance of SMEs auto service sector*

**Demand-Oriented Pricing**

Demand-oriented pricing considers service providers estimation of demand trends in determining pricing formation for services. Kimes and Wirtz (2003) stated that demand-oriented pricing allows higher margin earnings than the implementation of other pricing orientations. Hinterhuber (2008) believe that demand-oriented pricing is significantly related to the performance of services and that the relationship is not compared to cost-oriented and competition oriented pricing. Also, demand-oriented pricing is considered good for value-added service and regarding communicating the quality of service to consumers (Anderson & Xie, 2010). Demand-oriented pricing has been noted as a strategic option for designing a suitable pricing regime aimed at achieving higher performance for the firms (De Toni et al., (2017). Despite the importance of applying demand-oriented pricing, Avlonitis and Indounas, (2005) have found that firms do not widely use it. Such a limitation according to Hinterhuber (2008) is surprising considering the numerous benefits provided by demand-oriented pricing. It is, therefore, hypothesized that;

*H5: Demand-oriented pricing has statistically positive significant effects on performance of SMEs auto service sector*

## Methodology

The study was designed as quantitative research requiring the use of a questionnaire as a data collection instrument. A structured questionnaire with measuring items of the independent variables and the dependent were used for data collection. Also, measuring items for the four (4) firm-specific variables were used for data collection. 498 questionnaire collected from SMEs automobile service firms were used for data analysis. The questionnaires consisted of measuring items representing all the variables under investigation were designed in a 5 point Likert scale as 1 = strongly agree to 5 = strongly disagree.

## Measuring scale for study variables

***Pricing orientation.*** The development of the scale for Value Oriented Pricing (VALOP) was based on Ingenbleek et al. (2003) items generated for VALOP. Cost Oriented Pricing (COSOP) was measured in statements and literature search from Ingenbleek et al. (2003). Also, a modified version was developed based on comprehensive literature from (Ingenbleek et al. (2003) were used to develop Competition Oriented Pricing (COMOP). The scale for Customer-Oriented Pricing (CUSOP) was extracted from (Viglia & Abrate, 2014). ***Firm performance.*** The scale for firm performance was based on Liozu and Hinterhuber (2013) assessment of the relative performance of firms in a similar study. ***Control variables.*** The control variables for the study included firm age (the period the firm has been operating) (Hannan, 1998; Ju & Zhao, 2009), firm size (the number of employees or service attendance of the firm), firm ownership (the ownership structure of the firm) (Durand & Vargas, 2003; Elbanna, 2007) and firm location (firm located in clusters or single point) (Baptista & Mendonça, 2010; Beaudry & Swann, 2009).

## Test of Reliability

A Cronbach's alpha test was performed for internal consistency and reliability of the various items that define the variables under study. The test specifies whether the items relating to the dimensionalities are consistent internally and whether they are good enough to measure the constructs and dimensions of pricing orientation. The estimations were done regarding averages of inter-correlations between the items measuring the concepts.

**Table I: Reliability test**

| Variables | N0 of Items | Cronbach's Alpha | Tolerance | VIF |
|---|---|---|---|---|
| VALOP | 6 | .701 | .717 | 1.395 |
| COSOP | 5 | .879 | .723 | 1.382 |
| COMOP | 4 | .824 | .584 | 1.713 |
| CUSOP | 7 | .907 | .936 | 1.069 |
| DEMOP | 6 | .834 | .587 | 1.705 |
| FP | 9 | .789 | .815 | 1.431 |

***Note:*** *Value-Oriented Pricing (VALOP), Cost-Oriented Pricing (COSOP), Competition-Oriented Pricing (COMOP), Customer-Oriented Pricing (CUSOP), Demand Oriented Pricing (DEMOP), Firm performance (FP)*

The values of Cronbach's alpha of the study is between 0.701 and 0.879 which is greater than the standard value, 0.7 (Kline, 2000; George & Mallery, 2003). The variables test for validity and reliability included VALOP=.701 (6-items), COSOP=.879 (5-items), COMOP =.824 (4-items), CUSOP=907 (7-items), DEMOP=834 (6-items) and FM=.789 (9-items). It is important to note that the items used to measure the variables were valid and highly reliable.

**Table II: Person correlation coefficient of the study variables**

| Variables | FP | FA | FO | FL | FS | ValOP | CosOP | ComOP | CusOP | DemOP |
|---|---|---|---|---|---|---|---|---|---|---|
| FP | 1.000 | | | | | | | | | |
| Firm age | .001 | 1.000 | | | | | | | | |
| Firm Ownership | .041 | -.110 | 1.000 | | | | | | | |
| Firm location | -.130 | .016 | .047 | 1.000 | | | | | | |
| Firm size | -.016 | .102 | .014 | .016 | 1.000 | | | | | |
| VALOP | .260 | -.016 | .102 | .101 | .063 | 1.000 | | | | |
| COSOP | .571 | -.062 | .088 | -.034 | .021 | .491 | 1.000 | | | |
| COMOP | .594 | .100 | -.002 | -.043 | .025 | .037 | .160 | 1.000 | | |
| CUSOP | .070 | .060 | .056 | -.014 | -.056 | .181 | .069 | -.109 | 1.000 | |
| DEMOP | .652 | -.018 | -.005 | -.148 | -.023 | .034 | .168 | .621 | -.021 | 1.000 |

***Note:*** *Value-Oriented Pricing (VALOP), Cost-Oriented Pricing (COSOP), Competition-Oriented Pricing (COMOP), Customer-Oriented Pricing (CUSOP), Demand Oriented Pricing (DEMOP), Firm performance (FP)*

A Pearson correlation coefficient was performed to identify the extent of the relationship between the dependent variable of the firm performance of SMEs auto service sector with the independent variables of VALOP, COSOP, CUSOP, COMOP and DEMOP and the control variables firm size, firm age, firm ownership, and firm location. The correlation between the dependent and the independent variables are significant apart from CUSOP as indicated in Table II. In this case, the relationship between the independent variables was all below 0.500 but is strongly correlated with the dependent variable.

Meanwhile, the control variables firm age, firm ownership, firm location and firm size, .001, .041, -.130 and -.016 respectively has a weak correlation with the firm performance.

**Evaluating the model**

Before estimating any model, it is a must to check the validity of the model properly. In this respect, as necessary, tests for multicollinearity were made. Test for multicollinearity is done using collinearity statistics of Variance Inflation Factor (VIF) and Tolerance levels. As a rule of thumb, if the VIF of a variable exceeds 10 and the Tolerance level is less than .10, there is a serious multicollinearity problem. But the mean VIF result of VALOP recorded 1.395, COSOP =1.382, COMOP= 1.713, CUSOP=1.069 and DEMOP=1.705. Tolerance levels of the independent variables also indicated that there was no multicollinearity. VOLOP recorded .717, COSOP= .723, COMOP= .584, CUSOP=.936 and DEMOP= .587. Therefore, there may not be a problem of multicollinearity in the data. To check whether the standardized residual case has any undue influence on the result for our model as a whole, Cook's Distance was also tested. According to Tabachnick and Fidell (2007), cases of Cook's Distance with values larger than 1 are a potential problem for the model. The Cook's Distance as shown by the results in the residual statistics indicated *MIN*=.000 and *MAX* = .027

**Table III: Coefficient values for the study**

| | *Variables* | *Standard Error* | *Standardized Coefficient(β)* | *T-value* | *P-value* |
|---|---|---|---|---|---|
| Model 1 **Firm Performance** $R^2$=.019 *F*(4, 493) = 2.428 P<.05 | Firm age | .053 | .010 | .216 | .829 |
| | Firm Ownership | .594 | .048 | 1.076 | .282 |
| | Firm location | 1.335 | -.132 | -2.950 | .003 |
| | Firm size | .102 | -.016 | -.358 | .721 |
| | Firm age | .030 | .006 | .232 | .817 |
| Model 2 **Firm Performance** $R^2$=.696 *F* (5,488)= 217.429 P<.001 | Firm Ownership | .334 | .002 | .077 | .939 |
| | Firm location | .763 | -.043 | -1.689 | .092 |
| | Firm size | .057 | -.020 | -.798 | .425 |
| | VALOP | .158 | .212 | 6.234 | .003 |
| | COSOP | .156 | .450 | 15.337 | .000 |
| | COMOP | .116 | .283 | 8.673 | .000 |
| | CUSOP | .167 | .175 | 4.914 | .004 |
| | DEMOP | .084 | .395 | 12.132 | .000 |
| | DEMOP | .084 | .395 | 12.132 | .000 |

a. Predictors: (Constant), Firm size, Firm Ownership, Firm location, Firm age

b. Predictors: (Constant), Firm size, Firm Ownership, Firm location, Firm age, VALOP, COSOP CUSOP, COMOP, DEMOP,

A standard hierarchical multiple regression was used to evaluate the contribution of pricing orientation; VALOP, COSOP, COMOP, CUSOP and DEMOP towards the firm performance of SMEs automobile service sector after controlling for firm size, firm age, firm ownership, and firm location. Firm size, firm age, firm ownership and firm location as control variables were entered into step 1; the $R^2$ recorded .019, $F$ (4, 493) = 2.428 P<.05. This means that model 1explains 1.9% of the variance in the firm performance of SMEs automobile service firms. Step 2 was entered with all the independent variables VALOP, COSOP, COMOP, CUSOP, and DEMOP. The total variance explained by the model was 69.6 %, $F$ (5,488) =217.429 P<.001. Firm size, firm age, firm ownership and firm location as control measures, had no additional contribution of the variance in firm performance. This is because the $R^2$ for the control variables recorded .019. After controlling for firm size, firm age, firm ownership, and firm location, $R^2$ change increased to .696 indicating that the predictors of the model at 69.6%, F change (5, 488) =217.429, P < .001 are without the control variables.

VALOP weighted $\beta$= .212 (t= 6.234, P<.05) was statistically significant at 5%. As a result, ***hypothesis 1*** is accepted. COSOP weighted $\beta$= .450 unit (t=15.337), P<.001 was positively significant at 1%. The result indicates that ***hypothesis 2*** is accepted. Also, COMOP weighted $\beta$= .283 (t=8.673), P<.001 was positively significant at 1%, and therefore, ***hypothesis 3*** is accepted. CUSOP as one of the construct for pricing orientation weighted $\beta$= .175 (t=4.914, p<.05) was positively significant at 5%. The result suggests that CUSOP plays an important role in enhancing the firm performance that ***hypothesis 4*** is accepted. Finally, DEMOP weighted $\beta$=.395 (t=12.132, p<.001) was positively significant at 5%. The results suggest that DEMOP influences the performance targets of the SMEs automobile service sector and that ***hypothesis 5*** is accepted. It is, however, important to note that all the control variables; firm age $\beta$=.010, firm ownership $\beta$ = .048, firm location $\beta$ =-.132 and Firm size $\beta$=-.016 were found not to have a statistically positive significant influence on the firm performance of the SMEs auto service sector.

**TABLE: IV Summary of study hypothesis**

| | **Hypothesis** | **Coefficient (β) *(t)*** | **Hypothesis testing** |
|---|---|---|---|
| *H1* | VALOP→ Firm Performance | .212(*.158*)*** | Supported (+) |
| *H2* | COSOP→ Firm Performance | .450(*.156*)** | Supported (+) |
| *H3* | COMOP→ Firm Performance | .283(*.116*)** | Supported (+) |
| *H4* | CUSOP→ Firm Performance | .175(*.167*)*** | Supported (+) |
| *H5* | DEMOP→ Firm Performance | .395(*.084*)** | Supported (+) |

(p<.05)*** (p<.05) **

**Discussion and implication of results**

The study finds that VALOP, COSOP, COMOP, CUSOP, and DEMOP are positively linked to the performance of firms in the automobile services industry. These results thus provide empirical support that VALOP, COSOP, COMOP, CUSOP, and DEMOP are positively correlated with firm performance, regardless of firm size, firm age, firm ownership, and firm location. These findings are very significant: SMEs firms predominantly use VALOP (Monroe, 2001; Dietsch & Petey, 2002.) The significant contribution of VALOP to superior firm performance has also been recognized by Ingenbleek et al. (2003). The study thus corroborates with existing literature on the capabilities of VALOP in building organization-wide pricing capabilities. From the perspectives of these findings, SMEs will have little concerns implementing the pricing orientations (VALOP, COSOP, COMOP, CUSOP, and DEMOP). More specifically in the SMEs auto service sector firm are expected to identify areas of their operations that connect value and customer willingness to pay with no regards to firm size, firm age, firm ownership and firm location. The nature of competition in the industry also makes the finding interesting as customers may also consider other key areas of services such as service quality before pricing. However, as found by the current study and previous findings (see; Ingebleek et al., 2010) competition oriented pricing aids SMEs to attain high performance. Therefore SMEs auto service providers are expected to implement COMOP pricing towards superior performance. Again, the findings support Liozu et al. (2011) on the importance of COSOP towards firm performance. The significant contribution of both CUSOP and DEMOP towards firm performance as found in the current study have all been recognized in previous studies.

**Limitations and Suggestion for future studies**

This study is limited to the use of a willingness to participate approach to select the sample. This makes the sampling techniques a convenience sample. The nature of convenience sampling techniques and the numerous limitations creates a generalization problem for the current study. Again, the sample is limited to the SMEs automobile service firms for a single country. This makes it difficult for generalizations. Future research should engage in a sampling technique that is more easily generalizable. The study tested for the role of firm-specific variables firm size, firm age, firm ownership, and firm location but all were found not to influence the relationship between pricing orientations. This is a limitation because the direct relationship between pricing orientation and firm performance may have mediating or moderating variables which were not identified and captured in this study.

In a normative manner, firms that set targets and pursue the appropriate pricing orientation strategies under the expected market conditions should

improve their competitiveness and outperform other firms. It would be interesting to study whether these firms indeed perform better than firms that do not set target strategies or that engage in pricing orientation practices that are not theoretically related to their price objectives. The findings that firms pursue price orientation as a strategy for performance may include market conditions or external factors. Significantly, future research should study a comparative effect of firms using similar pricing orientation and those using different pricing orientation to arrive at which of the orientations generate superior performance for the firms in the industry. Finally, this study is one of the few that empirically relates price orientations to the firm performance of SMEs service sector, specifically the automobile services industry. Therefore, the current study aimed at the SMEs auto service industry with specific pricing orientations. Future researchers should aim at developing and testing hypotheses on the possible moderation effects of other variables in the automobile services industry. Internal capabilities of setting pricing can also be studied as a mediating variable in the pricing orientation and firm performance relationship.

## Conclusion

The present study aims to extend past research on the link between pricing orientation and firm performance. This is achieved by exploring the extent to which the components (Cost, Value, Competition, Customer and Demand) of pricing orientation individually influence the outcome of the performance of SMEs automobile service industry in Ghana. The results show that all the components; Value-Oriented Pricing, Cost-Oriented Pricing, Competition-Oriented Pricing, Customer-Oriented Pricing, Demand-Oriented Pricing have significant role in the performance levels of the firms that operate in the SMEs automobile services sector. The results highlight the significance of future studies into possible intervening and mediating factors that are likely to influence the relationship between pricing orientation and firm performance in the automobile services sector.

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