The Impact of Sales Force Automation System on Quality Service Delivery and Sales Reporting among Micro and Small-Sized Enterprises in Kumasi Metropolis, Ghana

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Abstract
The study was conducted to assess the impact of Sales Force Automation (SFA) system on quality service delivery and sales reporting among micro and small-sized enterprises (MSEs) in Kumasi Metropolis in the Ashanti Region in Ghana. Through descriptive survey design, 97 managers of these MSEs purposively selected and surveyed through self-administration of structure questionnaires. Both descriptive statistics (frequency and percentage) and inferential statistics (multiple regression) data analysis techniques were used to determine the research findings. It was found that SFA applications significantly and positively predict variance in quality service delivery in the selling function of MSEs. There was also a statistically significant but moderate positive correlation between the use of SFA and quality service delivery. It was also established that the use of SFA applications significantly and positively predict variance in sales reporting in the selling function of MSEs. There was also a statistically significant high positive correlation between the use of SFA and sales reporting. It was recommended that MSEs should integrate SFA system to support their traditional selling function. Application developers were advised to create special IT applications purposely for meeting the special need of MSEs in their selling activities in developing country like Ghana since high cost of integration possess challenge for the adoption of SFA system.

Key words: Sales Force Automation, system, quality service delivery, sales reporting, micro and small-sized enterprises, Kumasi

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1 Introduction

The inception of the information technology age is associated with revolution just as the industrial revolution marked the emergence of the industrial age [26]. In this era of information technology craze, there is an increasing interdependence between an organization’s ability to adapt information technology and its ability to implement effectively corporate strategies to achieve short, medium vis-à-vis long term corporate objectives [4]. These developments are present in the field of sales management as some specific software have been developed to enhance selling efficiency. Notable is the Sales Force Automation application. Sales Force Automation can essentially be described as the application of information technology to support salespeople in their selling and administrative activities [41]. Also, [34] posit that Sales Force Automation connotes hardware and software applications to provide knowledge that enhances learning and improves performance. Other authors who make broader conceptualizations of Sales Force Automation also include information technology that salespeople use to perform their roles such as mobile phones, e-mail, word-processors and web browsers in their definitions and not just the dedicated software offered by Sales Force Automation vendors [17, 27].

Sales specific IT, which is often called Sales Force Automation (SFA), enables salespeople to store, retrieve, and analyze customer data and manage important information throughout the sales cycle [41]. However, a working definition is that Sales Force Automation is any system of hardware or software (Information Technology) that automates many of the manual sales and administrative activities [22, 62, 17]. Micro and Small-size enterprises (MSEs) have been recognized as an important tool for local development, as they create opportunities for income generation and distribution, and empower people [2]. Literature indicates that the growth of MSEs has attracted attention from both researchers and government in developing countries, because of their potential to address unemployment, stimulate innovation and contribute to local development to promote economic growth [1, 42, 20, 45]. Hence, this study targeted Micro and Small-sized enterprises that are into both wholesaling and retailing business.

Competition is forcing businesses to adopt SFA application to support selling activities through the development of customer-centered strategies and detailed promotional programmes [33, 24]. Many salespeople have evolved from transactional selling to become managers of customer relationships [35]. SFA applications have helped to reduce much of the paper work, manage accounts, and control sales administration tasks [17] and has also enhanced sales managers’ task outcomes [60].

However, [27] cautions that the use of Sales Technology [ST] is only a necessary but not sufficient condition for performance improvement. Empirical findings of SFA and sales force performance including quality service delivery and reporting are conflicting. Some had negative impact on sales performance [6, 61, 11, 5, 32] whilst others had positive impact on sales performance [31, 23, 51]. More so, studies on SFA application has failed to concentrate business process [13]; hence, a call for priority on SFA application studies have been made [5, 38, 23, 49]. [57] draw attention to ‘appropriate’ use of IT and call for additional research to study what constitutes appropriate use, how organizations promote appropriate use, and how appropriate use translates into IT impacts and this come as a result of sales force knowledge. Further it is acknowledged that SFA are characterized with failure rates [12] and high resistance to change by sales force [64]. Because SFA gives management access to real-time information about sales activities, the sales force may perceive that the system is allowing management to become excessively obtrusive in monitoring the sales process [6].

It is against these backgrounds that this study was conducted to assess the impact of SFA application on quality service delivery and sales reporting among wholesale and retail Micro and Small Enterprises in the Kumasi Metropolis in the Ashanti Region of Ghana.

2 Literature Review

2.1 System Theory and Sales Force Automation System

System Theory, first proposed by Ludwig von Bertalanffy has been used for decades as an analytical approach to understand how complex physical, biological, economic and social systems
operate. Lomerson, (as cited in [43]) explained that a system is a set of several independent and regularly interacting or interrelating units or subsystems that work together to accomplish a set of pre-determined objectives. It encompasses many concepts of system theory such as inputs, outputs, boundaries, feedback and control and so forth that are useful in understanding business situations, specifically adoption of SFA system in selling organizations. Therefore, the systemic nature of the SFA must be briefly explained. There is triangular interdependence of three factors that interplay to achieve efficient functioning of SFA system. These elements include SFA software, hardware and users of the SFA. To promote synergy, these variables must be in their right conditions at all times. For instance, sales force should be trained to master the use of the SFA application. All needed gadgets for efficient functioning of the SFA system must be readily available in terms of quantity and quality. Appropriate software needs to be installed on the system as well. Failure on any of these subsystems would automatically downplay the efficiency of the SFA system.

2.2 The Concept of Sales Force Automation Application System

Dedicated sales force automation (SFA) applications have offered technological support to salespeople and managers since the 1980s [13]. SFA gradually gained attention since early 1990s with similar software aimed at various customers also presented on the market one after another [14]. The latest trends in marketing propose that to manage customer relationships effectively, organizations are adopting SFA applications [28]. Similarly, [6] provided that SFA is the use of software, hardware and telecommunication equipment in administrative and selling activities. Similarly, [6] assert that SFA refers to the use of software, hardware and telecommunication equipment in administrative and selling activities. Similarly, [6] provided that SFA is the use of software to automate sales tasks, including sales activities, order processing, customer management, sales forecasting and analysis, sales force management, and information sharing. It also leads to speed access to needed information [31], promotes sales tracking [35], creates a customer database [9], improves sales reporting, improves sales productivity and quality service delivery [10, 16], facilitates the conversion of manual sales activities into electronic processes [50], improves sales efficiency [59, 17, 54] and excellent customer support services [28, 25], improves sales closing rates, decreases sales administrative cost [58], improves customer relationship management [28], leads to the automation and standardization of selling and administrative activities [41], eliminates the issue of out-of-stuck, decreases markdowns/returns [54], leads to faster feedback marketing [46] and has positive impact on customer satisfaction and the bottom line [27].

The usage of SFA application improves order processing, provides up-to-date customer data, improves communication and collaboration between sales managers and sales force on field [19], reduce the time salespeople spend on non-selling tasks and thus give salespeople more time to sell [62, 17], promotes efficient supervision among sales force [22, 67], promotes auto generation of sales reports [6] and improves scheduling and monitoring [39].

2.3 Selling Function and SFA Application Usage

The sales function is viewed as being a part of conceiving, producing, and delivering customer value by understanding [56] as well as meeting customer needs by supplying goods and services appropriate to those needs [66]. [63] opined that sales is a boundary-spanning function with a more or less explicit role to produce value in business relationships with customers. Selling function is executed by sales force. Such value is delivered through sales processes. Sales process is an organized flow of all the activities that need to be accomplished so that a company can successfully do business with a customer [68]. [68] continued that those activities should be a systematic chain of events that is measurable, repeatable and sustainable. Sales force represents an employee group whose performance has a direct impact on company results [15]. Specialized salespeople are more effective than generalists [18]. Sales force are the users of SFA applications in selling organizations.

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2.4 Operationalizing SFA, Quality Service Delivery and Sales Reporting

Operationalizing SFA involves considering how the use of SFA system improves the traditional
manual selling activities of the MSEs in the Kumasi Metropolis. Key issues of interest in this study include performance of selling activities through SFA system, handling all requisition through SFA, confirming all requisitions through SFA system, automating all selling processes in the SFA system, tracking movement of stocks through SFA system, integrating all promotional activities into SFA system as well as handling all customer discounts through the SFA system.

Operationally, quality service delivery is seen as a process not a snapshot event when SFA is integrated into the selling function of the MSEs in the Kumasi Metropolis. Usage of SFA system under this context should be characterized with efficient backup system, have the ability to quicken and enhance selling process, aid order processing, reduce considerably the issue of under invoicing and over invoicing, eliminate the issue of preventable stock out during selling, improve sales efficiency, reduce non-sales task time, leads to the automation and standardization of selling and administrative activities, improve stock replenishment as well as improve monitoring of sales force performance in terms of territorial coverage. These variables are deemed to sufficiently measure the quality service delivery construct of the study.

Similarly, sales reporting under this context refers to the ability of SFA system to make preparation of sales report faster, make it simple without omitting key performance indicators, provide customer database for forecasting, prepare other special reports such as credit sales report, and possess reliable operational backup system, as well as auto generate all reports efficiently. These variables are deemed to sufficiently measure the sales reporting construct of the study.

### 2.5 Operationalizing Micro and Small-Size Enterprises

As cited [8] predominantly there are various definitions of SMEs but there exist no universally acceptable or consistent definition for the term SMEs. In lieu of the different definitions proposed by different authors and institutions, this research will use the one given by the [44], who defined micro enterprises as those employing not more than 6 workers and small enterprises as employing between 6 and 29. These domain of businesses are scattered across different industries of the Ghanaian economy and together with medium size enterprises constitute more than ninety percent of most operations in Ghana [44]. The Kumasi Metropolis is one of the thirty (30) districts in Ashanti Region. About 86% of the active population in Kumasi is economically active [21]. The economic activities sustaining the livelihood of the residents in the Metropolis can be categorized into Service, Industry and Agriculture [36]. The study therefore targeted wholesale and retail MSEs in the Kumasi Metropolis that use SFA application to support the selling functions of sales forces.

#### 2.6 Conceptual Framework

![Fig. 1 Conceptual Framework](source)

The study seeks to assess the impact of the usage of SFA application on quality service delivery and sales reporting as key indicators of sales force performance.

#### 2.7 Hypotheses

Based on results of the literature reviewed and underlying notion of the study the following hypotheses were derived and tested with appropriate statistical techniques.
H1: SFA usage positively predicts a statistically significant variance in quality service delivery.
H2: There is statistically significant positive correlation between SFA and quality service delivery.
H3: SFA usage positively predicts a statistically significant variance in sales reporting.
H4: There is statistically significant positive correlation between SFA and sales.

3 Methodology
The descriptive survey research design was used because such design portrays profile of persons, events or situations accurately [52] and also creates the grounds for establishing who, what, when, where, why and way of research [40]. The study was conducted in Kumasi Metropolis, the second largest industrial hub of Ghana. The population consisted of sales managers of micro and small-sized enterprises [MSEs] who are into wholesaling or retailing commerce. Through purposive sampling technique, 97 sales managers of these MSEs were contacted through self-administration of structured questionnaires for the collection of the primary data during their working hours. The questionnaire employed a checklist – a list of behavior, characteristics or other entities that the researcher is investigating – and Likert scale –, which is more useful when behaviour, attitude or other phenomenon of interest needs to be evaluated in a continuum [37] to obtain the needed information from the respondents. The data collection exercise took one month (excluding weekends), in May, 2017.

To ensure validity of questionnaires, the researchers reviewed other relevant but related literature that served as evidence and supported the answers found using the questionnaire with relevance determined by the nature of their research question and their own judgement [59]. A Cronbach’s Alpha of 0.710 was recorded for the internal consistency of the research instrument signifying reliability of the instrument [47]. SPSS (version 22.0) was used for the data analysis. Standard multiple regression was computed to assess the predict power of the independent variables on the dependent variables. Composite variables were created for the independent variable (SFA role) as well as the two dependent variables (quality service delivery and sales reporting) because these constructs were measured with multiple indicators.

4 Results and Discussion
The findings are presented chronologically to fully reflect the specific objectives of the study. Discussion of the findings are also briefly done to link up with previous empirical studies.

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex distribution of respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>68</td>
<td>70.1</td>
</tr>
<tr>
<td>Female</td>
<td>29</td>
<td>29.9</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSCE</td>
<td>9</td>
<td>9.3</td>
</tr>
<tr>
<td>Diploma</td>
<td>84</td>
<td>86.6</td>
</tr>
<tr>
<td>Graduate</td>
<td>4</td>
<td>4.1</td>
</tr>
<tr>
<td>Nature of business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retailing</td>
<td>56</td>
<td>57.7</td>
</tr>
<tr>
<td>Wholesaling</td>
<td>32</td>
<td>42.3</td>
</tr>
<tr>
<td>Type of business (by size)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miro Enterprise</td>
<td>17</td>
<td>17.5</td>
</tr>
<tr>
<td>Small enterprise</td>
<td>80</td>
<td>82.5</td>
</tr>
<tr>
<td>Working experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 years and below</td>
<td>62</td>
<td>63.9</td>
</tr>
<tr>
<td>6-10 years</td>
<td>35</td>
<td>36.1</td>
</tr>
</tbody>
</table>

Source: Field survey, 2017
The findings on Table 1 indicate majority of the respondents were male, representing 70.1% of the total sample size. The remaining 29.9% were female. This signals that, the workforce structure of MSEs are male-dominant by nature. Concerning the educational level of the respondents, it was determined that majority of the respondents (84), representing 86.6% had Diploma Certificates, indicating their current and highest level of education. Few had both SSCE and First Degree as their level of education, representing 9.3% and 4.1% respectively. By considering the nature of business, majority were wholesaling business (57.7%) whilst the remaining 42.3% were retailers. Also most of the respondents (82.5%) were managers of small-sized enterprise whilst the remaining 17.5% were micro-sized enterprises.

The study sought to uncover the working experience of the respondents, measured in number of years they have been working as sales managers. It was found that, majority of the respondents (62), representing 63.9%, have worked 5 years and below whilst the remaining 35 respondents, representing 36.1% have working experience between 6-10 years. Since the respondents have worked for relatively longer period of time, it can be concluded that they have enough working experience that will inform their decision making concerning the provision of the right information for this study.

4.1 Impact of Sales Force Automation on Quality service delivery

Standard multiple regression was conducted to assess the impact of SFA on quality service delivery among the respondents. Preliminary analysis was conducted to make sure that there are no violation of the assumptions of outliers, normality, linearity and homoscedasticity. The findings are presented as follows.

Table 2: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.377</td>
<td>.142</td>
<td>.132</td>
<td>1.10343</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Sales force automation roles
b. Dependent Variable: Quality service delivery

Source: Field survey, 2017

The findings from the Model Summary, as shown in Table 2, found that the model explained 14.2 percent of the variance in the dependent variable (quality service delivery). Meaning 85.8 percent of variance in the dependent variable can be explained by other variables not included in the model and suggests that the use of SFA predicts 14.2 percent of variance in quality service delivery in selling function. This is a good indication that the sales force could rely on SFA application to improve quality service delivery. Thus, hypothesis 1 is supported. This is similar to the findings of [29] when it was found that SFA significantly predicts 38.7% variance in sales performance. Also, the findings support the claims of other empirical findings [59, 62, 41, 17, 50, 39, 54].

Table 3: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>Beta</td>
<td>6.618</td>
<td>.000</td>
</tr>
<tr>
<td>Sales force automation</td>
<td>.377</td>
<td>3.838</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Field survey, 2017

The findings in Table 3 show that SFA makes a statistically significant but strong unique contribution to the prediction of quality service delivery in the selling function (Beta=0.377, Sig=000).
Table 4: Correlations

<table>
<thead>
<tr>
<th></th>
<th>Quality service delivery</th>
<th>Sales force automation roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.377</td>
</tr>
<tr>
<td>Quality service delivery</td>
<td>.377</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2017

The findings as presented on Table 4 show that there is a statistically significant moderate positive correlation between the use of SFA and quality service delivery (r=0.377; p=0.000). This means that a positive relationship exists between the usage of SFA application, and quality service delivery, which in turn suggests that usage of SFA application could indeed positively impact the quality service delivery.

4.2 Impact of Sales Force Automation on Sales Reporting

Standard multiple regression was conducted to assess the impact of SFA on sales reporting among the respondents. Preliminary analysis was conducted to make sure that there are no violation of the assumptions of outliers, normality, linearity and homoscedasticity. The findings are presented as follows.

Table 5: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.507</td>
<td>.257</td>
<td>.249</td>
<td>2.31646</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Sales force automation roles
b. Dependent Variable: Sales reporting

Source: Field survey, 2017

The findings from the Model Summary, as shown in Table 5, found that the model explained 25.7 percent of the variance in the dependent variable (sales reporting). Meaning 74.3 percent of variance in the dependent variable can be explained by other variables not included in the model and suggests that the use of SFA predicts 25.7 percent of variance in sales reporting in selling function. This is a good indication that the sales force could rely on SFA application to improve sales reporting activity. These support the claims of other empirical findings [10, 6, 31, 9].

Table 6: Coefficient

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized Coefficients</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sales force automation roles</td>
<td>.507</td>
<td>5.552</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Field survey, 2017

The findings in Table 6 indicate that SFA makes a statistically significant but unique contribution to predicting variance in sales reporting.
The findings as presented on Table 7 show that there is a statistically significant high positive correlation between the use of SFA and sales reporting \((r=0.507; p=0.000)\). This means that a positive relationship exists between the usage of SFA application, and sale reporting, which in turn suggests that usage of SFA application could indeed positively impact the sale reporting.

### 8 Suggestion for Further Study
Further studies need to be carried out to assess the impact of SFA system on sales productivity among MSEs in Ghana.

### References:


