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A Survey of Costing Practices of SMEs in the Informal Sector: Koforidua, Ghana

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Abstract:

Cost determination is critical and unique to products produced or services rendered by all businesses regardless of the sector domain. Costing is therefore significant in the determination of profit, growth and survival of businesses. Hence the need for a good cost accounting system also called product costing system in an enterprise. This study seeks to explore cost accounting practices used by SMEs in the informal sector, Ghana. The specific objectives are to examine the product costing method used by the SMEs, documentation and the cost accumulation in ascertaining the cost of a product or service. A sample of 300 businesses was used for the study using convenient sampling technique. A structured questionnaire was distributed to 300 SME operators in sewing, carpentry, printing press, hairdressing, mechanics, welders, glaze fabrication, electronic repairers, fridge repairers and goldsmith within the New Juaben Municipality, Koforidua. The results suggest that the most widely used product costing method is job costing. Contrary to job costing conventions, the study indicates that most SMEs in the informal sector of the New Juaben Municipality use customers' face (71.6%) followed by name (68.8%) in place of the conventional job card in documenting and costing customer orders. A strong correlation was also established between educational level and documentation. The higher the educational level of respondents, the more seriousness is attached to documentation.

Keywords: SMEs, Costing methods, Job cost card, overheads, Informal sector

1. Introduction

The informal sector in Ghana employs more than 60.0% of the total labour force in the country. However, the sector is characterized by underemployment, bad working conditions, uncertain work relationships and low wages. The majority of people are living with high income insecurity (Asare, 2014). The major activities under this sector include general trading (wholesaling and retailing), carpentry, sewing, printing press, hairdressing, mechanics, welders, gaze fabrications, electronic repairers, fridge repairers, gold smiths, and many others. The sector is primarily dominated with Small and Medium-scale Enterprises (SMEs).

SMEs within this sector are very heterogeneous groups consisting of a wide array of business activities ranging from artisans, general merchandizing, manufacturing and provision of other services. SMEs constitute the dominant form of business organization which accounts for over 90.0% of businesses (Abor & Quartey, 2010; Amoako, Marfo & Oduro, 2014). Basically, they are privately owned and operated with a small number of personnel usually family relations and can also be cooperative, partnership and sole proprietorship. In Ghana, the most common definition of SMEs is the number of employees of the enterprise, start-up cost, volumes of sales and the value of assets owned by an enterprise (Abor & Quartey, 2010; Amoako et al., 2014).

Accounting for cost which is paramount for the success of these businesses have been cited to be a major challenge confronting the operation of most SMEs in the informal sector (Van Triest & Elshahat, 2007; Lucey, 2008; Ahmed & Zabri, 2012). Cost and management accounting over the years has gained importance as SMEs develop and large industries set up cost and management accounting segments in an accounting departments. A system of costing is one sure means of gathering and analyzing data for effective decision making (Van Triest & Elshahat, 2007; Uyar, 2010; Drury, 2011; Ahmed & Zabri, 2012). It has also been identified that there is no conventional approach of cost accounting by SMEs in Ghana (Adjei, Oteng & Fianu, 2014). However, there are standards which need to be followed in cost estimation and determination (Lucey, 2008). Other studies also observed that SMEs fail due to inadequate cost accounting practices, bad record keeping and much overhead (Amoako, 2013; Dawuda & Azeko, 2015)

In determining the cost accounting practices of SMEs, it must be noted that every business unit consumes some amount of economic resources. The consumption of these resources lends itself to transactions that result in cost being incurred. The measurement, accumulation and the assignment of the resources consumed to various processes and outputs allow the structure and operation of these entities to be explained, understood and improved (IFAC, 2009). Costing uses money as a common denominator to measure the inflow and outflow of these resources. A product costing methods refers to the technique and processes employed in the ascertainment of costs (Arora, 2009). The choice of a costing method adopted by an organization is informed by the manner in which goods or products are produced and services are rendered. Unlike the adoption and use of financial accounting that is regulated by individual national legislations and accounting standards, the use of cost accounting methods and its practices are not bound by any regulatory requirement (Arora, 2009; Popesko, 2013).

Additionally, other studies have shown that costing practices assist management to plan and control resources (Shim & Siegel, 2009; Garrison, Nureen & Brewer, 2010; Drury, 2011). Kaplan and Cooper (1998) expressed concern about the accuracy of traditional product costing methods in providing relevant information to management. The outcome of their observation led to the development of another product costing method known as Activity Base Costing (ABC). Al Omiri and Drury (2007) suggested that the need to improve the sophistication of product costing systems has been driven by changes in manufacturing technology, global competition, information costs and customer's demands for greater product diversity. The evidences discussed indicate a gap of non-existence of standardized and acceptable cost accounting system and method of costing to be used by SMEs in cost accounting literature and therefore needs attention by reseachers.

Fundamentally, a good cost accounting system possesses a feature of proper and sound record keeping. Record keeping has been identified as a significant driver for high performance, profitability, growth and success of SMEs (Hughes, 2003; Okoli, 2011). Other research findings have also reported that SMEs in the informal sector do not keep record or at best minimal records which are not formalize (Ademola et al., 2012; Alhassan and Ibrahim, 2014). However, other studies have indicated certain factors which include educational level, requisite business and accounting knowledge, type of business ownership, number of employees, age of business and others as drivers of record keeping among SMEs in developing nations (Hughes, 2003; Akande, 2011; Mairura, 2011; Okoli, 2011).

It is therefore significant that record keeping has a role in determining costing system of SMEs for best cost accounting practices in Ghana. Several studies have also reported on poor record keeping system and practices as a major cause of the poor financial performance of SMEs (Mairura, 2011; Okoli, 2011; Maseko & Manyani, 2011; Adjei et al., 2014). Lack of accounting knowledge therefore leads to inefficient use of accounting information. It must also be noted that relevant accounting records and documentation (job/batch card preparation) is a must in the pursuit of measuring the cost of economic resources consumed in an organization (Drury, 2011).

A critical review of the importance of financial crisis affecting most young businesses and the demanding need for SMEs to operate by best costing accounting practices is vital. Previous contributions to cost and management accounting literature (Van Triest & Elshahat, 2007; Drury, 2011; Ahmed & Zabri, 2012; Adjei et al., 2014) have suggested that SMEs are failing due to lack of understanding on costing practices. Empirically, therefore this is an under-researched area to the best of the researcher's knowledge in Africa and Ghana particularly. This therefore suggests a need to research into costing practices among SMEs in the informal sector at New Juaben Municipality (NJM), Koforidua in Ghana which has motivated this paper. The specific objectives are to examine the product costing method used by the SMEs, the system of documentation and the cost build-up in determining the cost of a product or a service.

2. Methodology

This paper is a cross-sectional study conducted among 300 SMEs of the informal sector at New Juaben Municipality (NJM), Koforidua, Ghana. The aim of this paper is to examine cost accounting practices among SMEs. Questionnaire was designed and distributed among 300 SME operators within the municipality. The questionnaire was previously validated using a test-retest technique among 20 SME operators. The result showed that the questionnaire had a good internal consistency (Cronbach alpha = 0.7). A non-probability sampling method namely the convenience sampling was used to collect data from the respondents. This sample method was suitable for this study because of lack of available data on the SMEs in the informal sector. Research assistants were also employed to help in the administration of the questionnaire. In all, the services of ten (10) groups of research assistants put into gender pairing (a male and a female) were sent to different areas within the municipality after a-day training on questionnaire administration. Two (2) weeks was used for the collection of the data needed for this study.

The results were presented as frequencies and percentages and compared. All statistical analysis was performed using Statistical Package for Social Sciences (SPSS). A comparative analysis and a Chi-square test were also conducted to establish the correlation between the following variables: educational level and documentation, and basic accounting knowledge and job card preparation

3. Results

Out of the 300 questionnaires distributed 268 were returned, with 18 incomplete questionnaires leaving 250 complete and valid questionnaires (a response rate of **83.3%**).

Table 1 depicts that 80.6% of the respondents are between 20-40 years who are within productive working force and majority are male representing 61.2%. On education, 90.4% had formal education whilst 9.6% had no formal education with only 17.6% having basic

accounting knowledge. Most of the respondents are also into service (more than 60.0%) and job costing is the most predominant costing method adopted by the business owners.

	Frequency	Percentage
Age		
20 – 30	82	32.8
31 – 40	122	48.8
41 – 50	30	12.0
> 50	16	6.4
Gender		
Male	153	61.2
Female	97	38.8
Educational Level		
None	24	9.6
Basic	106	42.4
S.H. S	103	41.2
Tertiary	17	6.8
Nature of Business		
Manufacturing	60	24.0
Service	150	60.0
Both	40	16.0
Costing Method Used		
Job costing	232	92.8
Batch costing	5	2.0
Process costing	1	0.4
Contract costing	3	1.2
Service costing	9	3.6
Number of years of Operation		
1 - 3 yrs.	56	22.4
4 - 6 yrs.	64	25.6
7 - 9 yrs.	48	19.2
10 - 12 yrs.	30	12.0
> 12 yrs.	52	20.8
Basic Accounting Knowledge		
Yes	44	17.6
No	206	82.4

Table 1: Data on Respondents and Organization (n=250)
Source: Field Survey 2016: Data presented in frequency and percentage

Table 2 revealed the documentation process of the businesses within the informal sector. A significant proportion (more than 60.0%) stated that they have procedures for taking customers requirement. Despite this, the respondents expressed their views on means of documentation as follows; customers are identified by names (68.8%), by face (71.0%), job number (4.0%) and combination of job number and name (21.6%).

However, job cards are not prepared by the businesses in the informal sector (69.6%). As a result of this, 70.0% do not have knowledge on the content of job card. Meanwhile, the remaining 30.0% mentioned customer name, job number, material unit, material cost, job description and total cost as information on a job card.

	Frequency	Percentage
Procedure for taking customer order		
Yes	157	62.8
No	93	37.2
Means of Documentation		
Customer Name	172	68.8
Customer Face	179	71.6
Job Number	10	4.00
Job No. & Customer Name	54	21.6

Job/Batch Card is prepared		
Yes	76	30.4
No	174	69.6
Kind of Information on Job Card		
None	175	70.00
C. Name	35	14.0
Job. No.	5	2.0
Mat. Unit	6	2.4
Mat. Cost	8	3.2
Job Description.	9	3.6
Total cost	12	4.8

*Table 2: Record keeping and documentation of SMEs (n=250)
Source: Field Survey 2016: Data presented in frequency and percentage*

It is also evidenced from Table 3 that more than 50.0% of the operators mentioned that customers pay for expenses, thus overheads are added to the charges (63.2%) but 40.4% of the respondents had no idea as to how this is done but stated flat rate (18.0%), apportionment (37.2%) and both flat rate and apportionment (4.0%) as the bases for charging expenses. Again, time spent on labour is not recorded (86.8%) and 70.0% mentioned flat rate as means of charging labour. Additionally, there is no staff for costing jobs (93.6%) and (86.0%) of the respondents said there is no formal training for them on job costing practices.

	Frequency	Percentage
Customers pay for expenses		
Yes	134	53.6
No	116	46.4
Bases of Charging expenses		
Flat rate	45	18.0
Apportionment	93	37.2
Both	10	4.0
None (No Idea)	102	40.8
Time spent by Labour is recorded		
Yes	33	13.2
No	217	86.8
Bases of Charging for Labour		
Flat rate	171	68.4
Association rate	61	24.4
Hourly rate	2	0.8
Piece rate	16	6.4
Staff in charge of costing job		
Yes	16	6.4
No	234	93.6
Personnel/Owner trained on job costing		
Yes	35	14.0
No	215	86.0
Overheads are added to charges		
Yes	158	63.2
No	92	36.8

*Table 3: Cost Build up and Overheads Analysis (n=250)
Source: Field Survey 2016: Data presented in frequency and percentage.*

Documentations on Customers Orders	Level of education				Total
	No Education	Basic	Secondary	Tertiary	
Customer's name	15.2	60.9	23.9		100.0
Customer's face	10.8	53.8	35.5		100.0
Using job/batch number	-	-	100.0		100.0
Job/batch number & customers name	-	-	69.1	30.9	100.0
Total	9.6	42.4	41.2	6.8	100.0

*Table 4: Comparative test for level of education and documentation
Source: Field Survey 2016*

The study revealed 30.9% of the respondents had tertiary education and documents on customers' orders using job/batch number and customer's name. About 69.1% of the respondents who had secondary education also document customer's orders using the job/batch number and customer's name. We observed 35.5% of the respondent who had secondary education use customer's face as means of documentations. The research showed 100% of the respondents who had secondary education use job/batch number. 60.9% of the respondents with basic education who use customers name and 53.8% of them use customers face for documenting customers' orders. In all, 26% of the total respondent had no education. Out of this 15.2% uses customers name while 10.8% uses customers face.

Statistics	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	133.647 ^a	9	.000
Likelihood Ratio	154.120	9	.000
Linear-by-Linear Association	96.473	1	.000
N of Valid Cases	250		

Table 5: Chi-square test for educational level and documentation
Source: Field Survey 2016

The test produced a Pearson Chi-square test of 133.647 which far exceeds the P- value of 0.00 at a 0.05 significance level. It implies that there is a strong relationship between the variables under study. We can infer that, there is a significant relationship between the level of education and documentation of customer's order. It follows that, the higher the educational level of the respondent the more seriousness is attached to documentation of customer's order.

	Preparation of Job/Batch card		Total
	Yes	No	
Basic Accounting Knowledge			
Yes	11.4	88.6	100.0
No	34.5	65.5	100.0
Total	30.4	69.6	100.0

Table 6: Comparative test for Basic Accounting Knowledge and Preparation of Job /Batch card
Source: Field Survey 2016

Table 6 shows a comparative test for basic accounting knowledge and preparation of job card. The results show that 11.4% of the respondents who have accounting knowledge prepare job card and 88.6% do not prepare job card even though they have accounting knowledge. In addition, 34.5% without accounting knowledge prepare job card and 65.5% do not prepare job card.

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.146 ^a	1	.002
Continuity Correction ^b	8.086	1	.004
Likelihood Ratio	10.591	1	.001
Linear-by-Linear Association	9.109	1	.003
N of Valid Cases	250		

Table 7: Chi-square test for Basic Accounting Knowledge and Preparation of Job /Batch Card
Source: Field Survey 2016

The findings showed a weak relationship between accounting knowledge and preparation of job/batch card. The test showed a Pearson Chi-square test of 9.146 which is far greater than the significance level of 0.02. We can conclude that, respondents with basic accounting knowledge are more likely to prepare job /batch card.

4. Discussion

The study indicates that job costing is the predominant costing method used by businesses. This is consistent with the study of Uyar (2010) on cost and management accounting practices: a survey of manufacturing companies in Turkey where job costing was identified as the most widely used product costing method.

Since the finding suggests job costing as the predominant product costing method, preparation of job card for customers which is fundamental for customer specification should be the practice of these enterprises. However, the data from table 2 suggests that a significant proportion of the respondents (more than 70.0%) do not use job card as means of identifying and costing customer details. Surprisingly, the results suggest that 71.8% of SMEs use customers' face and 68.8% use customers name in place of the conventional job card in documenting and costing customer orders. This is a departure from cost accounting literature where as a requirement job cards are prepared for any product or service as a means of measuring cost (Lucey, 2008; Drury, 2011). This study suggests that Ghanaian SMEs in the informal sector in the New Juaben Municipality use customers' face as means of documentation.

A Chi-square test on basic accounting knowledge and job card preparation suggests that respondents with basic accounting knowledge are more likely to prepare job card. This is consistent with the study of (Hughes, 2003; Akande, 2011; Mairura, 2011; Okoli, 2011) that basic accounting is a driver for documentation on a job card. The study also reveals that there is a significant relationship between the

level of education and documentation of customer's order. It follows that, the higher the educational level of the respondent the more seriousness is attached to documentation of customer's order. Again other studies identified educational level, requisite business and accounting knowledge, type of business ownership, number of employees, age of business as drivers of record keeping which agrees with the current study (Akande, 2011; Ademola et al., 2012; Alhassan & Ibrahim, 2014). The study concludes that educational level and basic accounting knowledge are vital for job card preparation and documentation.

The findings suggest that SMEs in the NJM charge overheads to their customers. However, the method or technique of overhead treatment and its subsequent allocation by the SMEs to their customers are yet to be ascertained. This is in consistent with the study of Adjei et al. (2014) that SMEs in Ghana do not use conventional approach of costing.

A proportion of the respondents (i.e. > 40.0%) have no idea on how overheads should be treated in the cost build-up or accumulation. Van Triest and Elshahat in their study identified lack of cost and management accounting skills as a challenge confronting SMEs in general which includes the informal sector. Other study attributes SMEs failure to inadequate cost accounting practices. (Amoako, 2013, Dawuda & Azeko). These findings are consistent with the current study and therefore conclude that insufficient knowledge on costing practices exists among the SME owners in the Ghanaian informal sector.

5. Conclusion

It was observed that job costing is the most predominant product costing method employed by the SMEs in the informal sector. However, the results suggest that most SMEs use customers face and name in place of the conventional job card in documenting and costing customer orders. It also concludes that the higher the educational level, the more seriousness is attached to documentation by SMEs in the informal sector. Again, respondents with basic accounting knowledge are more likely to prepare job/batch card. SMEs in the NJM charge overheads to their customers. However, the method or technique of overhead treatment and its subsequent allocation by the SMEs to their customers are yet to be ascertained. Training programs should therefore be organized by all stakeholders to assists the business owners acquire basic knowledge on job costing practices to enable them adopt some scientific means of determining the cost of a product or service. It is worth nothing that the findings of this study could not be generalized due to the small nature of the sample size. The study was also geographical limited since it was conducted in Koforidua, NJM and only confined to SMEs in the informal sector. Further study could be conducted nationwide with the participation of larger number of SMEs and also to explore how SMEs use customer name and face as means of documentation.

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