

Effective Management Accounting System in Food and Drinks Industries in Lagos State, Nigeria

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Abstract

A study was conducted and visitation was made to some food and drinks industries in Lagos, Nigeria. Data for management accounting were gathered and use to evaluate the effective implementation of management accounting systems for organizational performance in these manufacturing industries and analyses were carried out by the use of tables, frequencies and percentages. This work has helped the food industries to move forward by using self-assessment as a method for identifying improvement opportunities and assessing their progress towards business excellence. This may be increasingly imperative for the Nigerian food sector if trade liberalization continues to lead to greater international competition. The food industry has not been exposed to the same degree of international competition as some other industries. The results of this in-depth investigation covering budgeting, performance evaluation, costing, decision-making, communication and strategic analysis led to the conclusion that traditional management accounting is still very much alive and well in Lagos state food and drinks companies. Consequently, Given that there is some validity in this approach, it is recommended that companies benchmark themselves against the management accounting system in different stages of evolution and consider adopting 'more advanced' practices (such as the value creation ones). Also, adequate awareness should be given to manufacturing industries on the importance of effective management accounting system for optimum performance.

Keywords: effective management, accounting, food and drinks, optimum performance.

INTRODUCTION

The objectives and goals of an organization can best be obtained and retained when the members of that organization fully understand the opportunities associated with its accomplishment and the total talents and skills of all member are provided the opportunity to participate in achieving those goals and objectives converting this statement into usable terms means to pursue the method of effective management accounting techniques in the highest capacity when seeking productivity at its maximum. (Kaplan, 1984) (Drury, 1996) Otley, (1995), argued that these 'new' techniques have affected the whole process of management accounting (planning, controlling, decision-making, and communication) and have shifted its focus from a 'simple' or 'naïve' role of cost determination and financial control, to a 'sophisticated' role of creating value through the use of resources. The objective of the study is to:

- evaluate the level of management accounting system involvement in manufacturing industry.
- evaluate the role of manufacturing managers on the effective utilization of management accounting principles

Adejuyigbe (2002) and CIMA (2000) defines management as the act of planning, organizing,

staffing, controlling, coordinating and directing of human resources to achieve the enterprise objective. He also went further to see management as the process by which a co-operative group directs action of others towards common goal. Management also involves getting a job done through people. Fashina (1974) offers what is termed a management means stimulating people to action to accomplish desired goals.

Ward (1992) stated that management accounting is of value to the strategic management process by its capability to provide the required information, at the right time, and to the right level of decision maker. Accounting information can be useful but its shortcomings include invalidity, incompetence, infrequency, inaccuracy and inconsistency for long-term effect, misunderstanding and measurement of wrong variables (Johnson and Kaplan, 1987; Berniler and Brimson, 1988; Bihimani and Brimson, 1989). According to Horngren and Foster (1991) financial information is inadequate for decision making purposes because it does not provide all the information that a manager needs in order to make a business decision, as for example human relation problem. The interrelated function of the manager is to make funds available at the right time, for the right length of time, and obtain at the lowest cost and used in the most effective way.

MANAGEMENT ACCOUNTING

Kajola et al (1999) defines management accounting as the applications of professional knowledge and skill in the preparation and presentation of accounting information in order to assist managers in the formulation of policies and planning and control. According to Adeniyi (2001) Management Accounting represent an application of a professional skills and knowledge in the area of cost analysis or cost accounting towards solving managerial problems.

Management Accounting by Horngren et al (1997), measures and reports financial information as well as other types of information that assist managers in fulfilling the goals of the organization, and that it thus concerned with;

- i) Formulating overall strategies and long range plans.
- ii) Resource allocation decisions such as product and customer emphasis and pricing.
- iii) Cost planning and cost control of operations and activities.
- iv) Performance measurement and evaluation of people.

STAGES OF MANAGEMENT ACCOUNTING

In 1998 the International Federation of Accountants (IFAC) issued a statement describing the development of management accounting through the following four sequential stages:

1. Cost determination and financial control (pre-1950).
2. Provision of information for management planning and control (by 1965).
3. Reduction of resources waste in business process (by 1985).
4. Creation of value through effective resources use (by 1995).

MANUFACTURING SYSTEM

Manufacturing is the transformation of raw materials into finished goods for sale, or intermediate processes involving the production or finishing of semi-manufactures. Manufacturing is also defined as the mechanical, physical, or chemical transformation of materials or substances into new products. It is a large branch of industry and secondary production. The manufacturing thus consists of a series of interrelated activities and operations involving design, material selection, quality assurance etc (Sharma 2006).

PRODUCTION SYSTEM

A production system according to Sharma (2006) helps a manufacturing system to produce the goods. He goes further to say that there are many types of manufacturing systems (Job shop, flow line etc.), but all the manufacturing systems are derived by a production system and that a production system

serves the manufacturing system/systems and the individual processes to manufacture goods, without itself manufacturing products.

METHODOLOGY

An empirical study was conducted to address the research questions. The design of the study is divided into the following sections:

- Data collection method.
- Sample frame and size.
- Responses to questionnaire.

DATA COLLECTION

A postal questionnaire was used to collect empirical data. This facilitated access to a number of respondents and thus provided sufficient data for statistical analysis, without undue cost. The time and other pressures on management accountants and production managers would have severely restricted the number willing to be interviewed. Nevertheless, a limited number of face-to-face interviews were carried out. First, to pilot the questionnaire before sending it out, and secondly, to follow-up the questionnaire in order to check the reliability of the survey results and to seek further explanation of some of the responses.

Two face-to-face pilot interviews (one management accountants and one production manager) were undertaken before the questionnaire was sent out.

SAMPLE FRAME AND SIZE

One aim of this survey was to study the relationship between management accounting practices and specified manufacturing procedures.

A number of criteria were used in selecting companies for inclusion in the sample:

- Manufacture of food products and beverages
- Employment of at least 30 people
- Being active and independent companies
- Having a registered office address in Lagos, Nigeria

Accordingly two versions of the questionnaire were sent to each sampled company. The first version was addressed to the person leading the Management Accounting function (MA) while the second version was to be completed by the Production Manager (PM). The final section included questions related to measuring the extent of the Production Management's satisfaction with the firm's management accounting system.

RESPONSES TO QUESTIONNAIRE

As stated earlier the two versions of the questionnaire were sent to 30 companies in the food and drinks industry. A total of 20 questionnaires were returned giving a response rate of 33% (20/60). Of these 3 were blank because of company policy not allowing

responses to surveys or the company was small. A further two responses were judged invalid because of a large portion of the questionnaire was not completed. Hence 15 usable completed questionnaires were used in the analysis giving a net usable response rate of 27.3% (15/55) which was considered acceptable. Of these usable completed questionnaires were management accounting version and production management version. Six companies completed both versions of the questionnaire.

RESULTS AND DISCUSSION

The main focus of this chapter is on the presentation and statistical analysis of data collected. The information gathered were sorted, edited and coded. The Statistical Package for Social Sciences (SPSS) was used for data analysis. The survey findings concerning the use and importance of Management Accounting System are done below

Table 1: Number of employees in each company

		Frequency	Valid percent
Valid	<100	1	6.7
	100-200	3	20.0
	200-300	1	6.7
	300-400	3	20.0
	400-500	2	13.3
	>500	5	33.3
	Total	15	100.0

Source: Survey data 2012

Questionnaires were administered to the management accountants and the production managers of some food and drinks industries and 15 usable questionnaires were received and analyzed. Of these, were replies to the management accounting version questionnaire and also of the production management version. (Table 1)

In the Management Accounting version, respondents were asked to indicate the frequency of production or the use of 38 Management Accounting Systems (MASs) using a five point Likert-type scale (1 indicating never and 5 indicating very often). They were also asked to rate the importance of each technique/system using either 'not important' 'moderately important' 'important'. The 38 Management Accounting Systems were classified into five groups: costing system, budgeting, performance evaluation, information for decision-making and strategic analysis. In addition separate questions were asked concerning the communication of Management Accounting information. The results of each group are reported in turn as follows;

COSTING SYSTEMS

To find out the extent to which practitioners applied their costing system to provide more accurate cost information for decision making purposes, respondent were asked to indicate how often are seven techniques related to costing systems. The

responses are summarized in table 4.1. The data are shown on the left-hand side of Table 2.

From the right-hand side it can be seen that 52% (31% + 21%) of the companies either often or very often distinguish between variable/incremental costs and fixed/non-incremental costs for decision-making purposes. The importance of this separation was acknowledged by 84% of respondents rating it as either moderately important or important. By contrast a relatively small number indicated high usage of the three techniques (plant-wide, multiple-rate or ABC) for allocation of overheads to cost objects. Even though it can be argued that plant-wide, departmental and activity-based techniques are mutually exclusive, nevertheless the figures indicate that overhead allocation does not appear to be done very frequently. The combination of these two findings suggests that variable (or direct) costing is much more common than various form of absorption costing. While absorption (including ABC) costing has a relatively low usage rating, it nevertheless seems to have considerable importance; (27%+19%) 46%, (38%+19%) 51% and (35%+14%) 49% of respondents rated the three forms either moderately important or important.

Table 2: Management accounting system summary statistics shown by percentage of respondents

How important?				How often used?						
n	N	M	I	Costing system	n	A1	A2	A3	A4	A5
14	16	32	52	A separation is made between variable /incremental costs and fixed/non-incremental costs	12	10	12	26	31	21
11	54	27	19	Using a plant-wide overhead rate	13	52	9	15	16	8
12	49	38	13	Department or multiple plant-wide overhead rates	13	46	16	24	5	9
12	51	35	14	Activity-based costing (ABC)	14	56	19	15	7	3
9	43	38	19	Target costs	11	42	11	22	16	9
11	39	47	14	The cost of quality	11	39	26	18	11	6
8	88	10	2	Regression and/or learning curve techniques	10	85	9	5	1	0
n	number of respondents				A1	never				
N	not important				A2	rarely				
M	moderately important				A3	sometimes				
I	important				A4	often				
					A5	very often				

Source: Survey data 2012

BUDGETING

The implementation of Activity-Based Costing (ABC) was followed by the introduction of Activity-Based Budgeting (ABB). Table 3 summarizes the responses.

The survey shows that budgeting is either often or very often used for planning and for controlling costs by an overwhelming 82% and 78% respectively. Taken together, budgeting for planning and control was considered either important or moderately important by more than 90% of respondents. It can be concluded that almost all companies use budgeting for planning and control. Many companies (34%) use flexible budgeting but (31%) clearly do not flex their budgets at all! 'what if' budget analysis is clearly very important but, as expected, is only applied from time to time.

ABB was considered either moderately important or important by the majority of respondents (61%). However, only 17% of respondents were using it often or very often. One would not expect zero-based budgeting to be applied very frequently but it was perhaps surprising to see that it is also seen to be largely unimportant (58% of respondents). Finally, 84% rated budgeting as an important part of their long-term strategic planning.

Table 3: Management accounting system summary statistics shown by percentage of respondents

How important? used?					How often used?				
n	N	M	I	Budgeting	n	A	A	A	A
8	8	16	77	Budgeting for planning	10	1	5	12	53
9	6	21	73	Budgeting for controlling costs	10	2	3	17	51
11	39	42	19	Activity-based budgeting	13	37	24	22	10
7	18	49	33	Budgeting with 'what if analysis'	8	15	14	38	9
11	24	42	34	Flexible Budgeting	13	31	16	26	10
12	58	28	14	Zero-based Budgeting	12	54	21	12	5
11	16	32	52	Budgeting for long-term (strategic) plans	11	16	19	27	11
n	number of respondents				A1	never			
N	not important				A2	rarely			
M	moderately important				A3	sometimes			
I	important				A4	often			
					A5	very often			

Source: Survey data 2012

PERFORMANCE EVALUATION

To ascertain the extent to which management accounting systems provide different performance

measures we asked respondents to rate the usage and importance of five groups of measures: financial measures; EVA (residual income); benchmarks; and non-financial measures related respectively to customers, to operations and innovation, and to employees. Table 4 shows the results.

As expected, the majority of respondents (72%) rated financial measures as important and about the same percentage reported frequent usage of these measures. Non-financial measures related to customers and to operations and innovation are clearly very influential with 89% and 76% respectively scoring them as at least moderately important. However, a significant minority of companies (37% for both categories of measures) produces such measures either never or rarely. The non-provision of employee related measures are even more marked, with 42% of respondent answering never. The results show also that neither EVA, nor benchmarking has gained popularity yet among Nigerian food and drinks companies.

Table 4: Management accounting system summary statistics shown by percentage of respondents

How important? used?					How often used?				
n	N	M	I	Performance evaluation	N	A	A	A	A
8	12	16	7	Financial measure(s)	10	8	6	14	48
11	11	41	48	Non-financial measure(s) related to customers	12	13	24	25	18
11	2	3	4	Non-financial measure(s) related to operations and innovation	12	19	18	16	21
9	32	55	13	Non-financial measure(s) related to employees	10	42	24	5	3
8	66	28	6	Economic value added or residual income	8	64	24	9	1
9	41	47	12	Benchmarks	9	47	28	19	1
n	number of respondents				A1	never			
N	not important				A2	rarely			
M	moderately important				A3	sometimes			
I	important				A4	often			
					A5	very often			

Source: Survey data 2012

INFORMATION FOR DECISION-MAKING

Summaries of the responses to questions about decision-making management accounting systems are shown in table 5. It can be seen that product profitability analysis and customer profitability analysis are often or very often calculated in the majority of companies – 70% and 54% respectively. Respondents also rated these analyses as important -

70% and 60% respectively. CVP analysis is seen to be important or moderately important by 82% of respondents and is also surprisingly frequently produced – 46% indicating that such analyses are used at least often. Stock control models are largely moderately important and sometimes used. Regarding capital investment decisions, 40% of respondents used traditional accounting measures such as accounting rate of return and pay back period to evaluate major capital projects while the equivalent figure for discounted cash flow models, such as internal rate of return and net present value, is only

21%. This apparent skepticism of ‘advanced’ investment appraisal is confirmed by the figure of 44% answering that calculating the cost of capital was not important! Non-financial factors relating to capital projects are perceived to be either important or moderately important by 83% of respondents, but only 34% of companies often or very often report and document such factors. Finally, ‘what if’ analysis is the most popular technique in evaluating the risk of projects though only 23% of respondents used it often or very often.

Table 5: Management accounting system summary statistics shown by percentage of respondent

How important?						How often used?					
n	N	M	I	Information for decision-making		n	A1	A2	A3	A4	A5
11	18	32	50	Cost-volume-profit analysis (break-even analysis) for major products		13	9	26	19	28	18
10	2	28	70	Product profitability analysis		12	3	7	20	34	36
11	8	32	60	Customer profitability analysis		13	7	13	26	26	28
11	22	41	37	Stock control models		13	18	24	29	19	10
7	30	43	27	Evaluation of major capital investments based on discounted cash flow method(s)		9	38	19	22	7	14
9	8	46	45	Evaluation of major capital investments based on payback period and/or accounting rate of return		11	13	13	34	18	22
11	17	47	36	For the evaluation of major capital investments, non-financial aspects are documented and reported		13	16	16	34	21	13
10	67	25	8	Evaluating the risk of major capital investment projects by using profitability analysis or computer simulation		12	73	19	4	2	2
9	34	47	19	Performing sensitivity 'what if' analysis when evaluating major capital investment projects		11	33	27	17	14	9
11	44	38	18	Calculation and use of cost of capital in discounting cash flow for major capital investment evaluation		13	46	21	16	13	5
n	number of respondents			A1	never						
N	not important			A2	rarely						
M	moderately important			A3	sometimes						
I	important			A4	often						
				A5	very often						

Source: Survey data 2012

STRATEGIC ANALYSIS

Traditional management accounting systems have been criticized because they focus on reporting information related to internal processes with little attention being given to the external environment and the effect of competitors’ decisions and cost structures on current and future processes of the business. They are environmental or marketing orientation, focus on competitors, and long-term, forward-looking orientation. Eight strategic practices were given to respondents who were asked to indicate how often they use them as well as their importance. Table 6 shows the results.

It can be seen that long-range forecasting was often or very often done by most (44%) of the companies. This was followed in frequency by the analysis of competitive position (33%) and the analysis of competitors’ strengths and weaknesses (24%). It may be concluded that companies are, at present, more interested in conventional long-range (forward-looking) planning and lateral competitive analyses than in contextual stakeholder, industry, life-cycle or value chain analyses. The high scoring of importance, relative to frequency of use, of analyses of

competitive position (and competitors’ strengths and weaknesses) and of value chains suggests that the application of these practices will become widespread and frequent.

COMMUNICATION OF MANAGEMENT ACCOUNTING INFORMATION

The most significant management accounting problems were: providing accurate and timely information on-line to the shop floor, improved timeliness in reporting data, and changing the information gathering system so that it becomes real-time and interfaces with other systems.

To explore this issue, management accountants were asked to assess the importance, to their business, of four levels of accessibility of internal reports. The results are shown in Table 7. They indicate that it is important to provide detailed management accounting information on a systematic, regular, short-term basis (90% of respondents). The ability to provide detailed information immediately on request was rated important or moderately important to 87% of respondents. Immediate updating and the provision of real-time information was important to only 11%.

However, this and the prior statistics may have been biased downward by the word ‘detailed’. In any event, even if detailed real-time reporting is not widespread, it is clear that organizational changes have altered information dispersion channels; 53% of respondents indicated that it is important that detailed management accounting information is reported direct to line manager. This confirms the evidence that there is now widespread ‘ownership’ of management accounting which is increasingly less subject to ‘filtering and analysis’ by accounting specialists.

Table 6: Management accounting system summary statistics shown by percentage of respondents

How important?					How often used?					
n	N	M	I	Strategic analysis	N	A 1	A2	A 3	A 4	A5
13	11	38	51	Long-range forecasting	13	14	15	27	27	17
11	78	17	5	Shareholder value	11	66	21	6	6	1
9	63	29	7	Industry analysis	10	67	15	6	6	5
11	19	41	39	Analysis of competitive position	11	17	18	32	25	8
12	52	28	21	Value chain analysis	13	51	16	14	9	10
13	62	31	7	Product life cycle analysis	12	69	15	5	5	6
11	46	37	17	The possibilities of integration with suppliers' and/or customers' value chains	12	47	14	28	8	4
11	16	51	33	Analysis of competitors' strengths and weakness	13	14	28	34	18	6
n	number of respondents				A1	never				
N	not important				A2	rarely				
M	moderately important				A3	sometimes				
I	important				A4	often				
					A5	very often				

Source: Survey data 2012

Table 7: Communication of management accounting information

	% of respondents			
	n	N	M	I
Detailed management accounting information is available on a systematic, regular, short-term basis (e.g. weekly or monthly)	13	1	9	90
Detailed management accounting information is updated and made available immediately upon request.	12	13	52	35
Detailed management accounting information is updated and made available on a real-time basis	12	38	51	11
Detailed management accounting information is reported direct to line managers	11	18	29	53
n	Number of respondents			
N	not important			
M	moderately important			
I	important			

Source: Survey data 2012

Question on Production Management

Table 8: The extent to which company uses TQM, JIT & AMT to achieve production.

		Frequency	Valid percent
Valid	To considerable extent	2	15.0
	To a small extent	6	46.0
	Not at all	5	39.0
	Total	13	100.0
Missing	System	2	
Total		15	

Source: Survey data 2012

From above table 8, it is seen that 46% apply TQM, JIT & AMT to a small extent while 39% do not apply at all.

Table 9: Interdependence between management accounting system and manufacturing system

		Frequency	Valid percent
Valid	Dependent to a significant extent	8	73.0
	Not entirely independent	2	18.0
	Independent on each other	1	9.0
	Total	11	100.0
Missing	System	4	
Total		15	

Source: Survey data 2012

Table 9 above shows that 73% of respondents believed that management accounting system and manufacturing system are interdependent to a significant extent.

Table 10: The degree of satisfaction with company's manufacturing system.

		Frequency	Valid percent
Valid	Extremely satisfied	2	15.0
	Neither satisfied nor dissatisfied	4	31.0
	Not satisfied at all	7	54.0
	Total	13	100.0
Missing	System	2	
Total		15	

Source: Survey data 2012

Table 10 above shows that over half of those responding to the question (54%) indicated a strong dissatisfaction in their company's manufacturing system. However a further 31% is neither satisfied nor dissatisfied.

Table 11: Advance Manufacturing Technology used

How important?					How often used?					
n	N	M	I	Advance manufacturing technology	n	A1	A2	A3	A4	A5
18	5	17	8	Material Requirement Planning	20	1	21	6	6	6
20	11	38	1	Computer Aided-Design	22	1	5	12	25	7
16	7	29	3	Flexible manufacturing Systems	18	6	17	6	6	5
19	2	28	2	Automated materials Handling	17	5	11	14	9	10
21	7	31	2	Computer-aided inspection & planning	19	1	17	32	25	5
n	number of respondents				A1	never				
N	not important				A2	rarely				
M	moderately important				A3	sometimes				
I	important				A4	often				
					A5	very often				

Source: Survey data 2012

Summaries of the responses to questions about advance manufacturing technology are shown in the table 11 above. It can be seen that computer aided design and material requirement planning are very often used in the majority of companies – 57% and 66% respectively. Respondents also rated these analyses as important - 78% and 51% respectively. Flexible manufacturing system is seen to be important or moderately important 93% of respondents and is also surprisingly not frequently used – 67%. Automated material handling is largely important and sometimes used. Regarding computer aided inspection and planning 62% of respondents believed it is important while 32% says it is sometimes used.

Table 12(a): How important it is to understand the relationship between management accounting system and manufacturing system

		Frequency	Valid percent
Valid	Extremely important	11	85.0
	Neither important or unimportant	2	15.0
	Not important at all	-	0.0
	Total	13	100.0
Missing	System	2	
Total		15	

Source: Survey data 2012

Table 12(b): Understanding the relationship between management accounting system and manufacturing process

		Frequency	Valid percent
Valid	To a considerable extent	6	60.0
	To a small extent	3	30.0
	Not at all	1	10.0
	Total	10	100.0
Missing	System	5	
Total		15	

Source: Survey data 2012

While it is believed in table 12(a) that it is extremely important to understand the relationship between manufacturing system and management accounting system by 85% of the respondents, Table 12(b) above shows that over half of those responding to the question (60%) indicated a strong understanding of the relationship between management accounting system and manufacturing system.

Table 13: How often company make use of JIT, TQM & AMT for production

How often used?										
				n	A1	A2	A3	A4	A5	
			Just in Time Production	11	8	6	48	25	14	
			Total quality management	9	13	24	25	20	18	
			Advance manufacturing Technology	8	19	16	27	17	21	
n	number of respondents								A1	
never									A2	
rarely									A3	
sometimes									A4	
often									A5	
very often										

Source: Survey data 2012

From table 13 above, it is seen that just in time production, total quality management and advance manufacturing technology is sometimes being used by higher percentage of respondents with 48%, 25% and 27% respectively while others never or rarely use them.

General Question

In the general question aspect, interviews were conducted with 30 personnel 27 male and 3 female, more than half (52%) in the 41-50 age band and over 70% had been working for the company for more than 6years. Their positions in these companies are split evenly between finance (8), marketing and sales (10) and design (10) with the addition of two procurement managers in customer companies.

Table 14: Respondents

		Frequency	Valid percent
Valid	Marketing	10	33.3
	Finance	8	26.7
	Design	10	33.3
	Customers	2	6.7
Total		30	100

Source: Survey Data 2012

Table 15: Relationship between engineers and accountants

		Frequency	Valid percent
Valid	Strong	11	57.9
	Fair	6	31.5
	Varies depending on the project	1	5.3
	Total	19	100.0
Missing	System	11	
Total		30	

Source: Survey Data 2012

Table 15 above, shows that over half of those responding to the question (58%) indicated a strong relationship between accountants and engineers. However a further 11 could not comment on this because they do not have an in-house design facility.

Table 16: Increase customer perception of value provides opportunity to increase price

		Frequency	Valid percent
Valid	Yes	21	80.7
	Don't know	1	3.8
	No	4	15.3
	Total	26	100.0
Missing	System	4	
Total		30	

Source: Survey data 2012

Table 16 above, shows that 81% of respondents believed that if customers perceived high value in their products, this would provide an opportunity to increase price.

Table 17: How does increases in perceived value relate to company profit margins?

		Frequency	Valid percent
Valid	Directly proportional	20	80.0
	Not related	2	8.0
	Don't know	3	12.0
	Total	25	100.0
Missing	System	5	
Total		30	

Source: Survey data 2012

From table 17 above, 80% of respondents thought that improvements in product value through good design are directly related to improved profit margins.

Table 18: Do perceptions of product value change over time?

		Frequency	Valid percent
Valid	Yes	21	77.7
	No	6	22.2
	Total	27	100.0
Missing	System	3	
Total		30	

Source: Survey data 2012

Table 18 above shows that 78% of respondents believe that product value perceptions change over time.

Table 19: Company performance compared with nearest competitors

		Frequency	Valid percent
Valid	Better	14	51.8
	About the same	7	25.9
	Worse	3	22.2
	Total	27	100.0
Missing	System	3	
Total		30	

Source: Survey data 2012

Table 19 above shows that 52% rate their performance as better than the nearest competitors and 26% a similarity in performance. Only three respondents believe company performance to be worse.

Table 20: How much do new products rely on image presented by previous products?

		Frequency	Valid percent
Valid	Very important	14	58.3
	Important	8	33.3
	A little	0	0.0
	Not at all	2	8.3
	Total	24	100.0
Missing	System	6	
Total		30	

Source: Survey data 2012

In table 20 above 92% see the image or reputation earned by previous products as important or very important for successful launch and sales.

Table 21: How much do new products rely on company image for successful launch or sales?

		Frequency	Valid percent
Valid	Very important	10	41.6
	Important	8	33.3
	A little	2	8.3
	Not at all	4	16.6
	Total	24	100.0
Missing	System	6	
Total		30	

Source: Survey data 2012

In table 21 above, 41.6% of those responding believe that company image for successful launch or sales of new products is very important whereas some other 8.3% says not at all.

Table 22: Can design help to promote company image?

		Frequency	Valid percent
Valid	Yes	23	92.0
	No	2	8.0
	Total	25	100
Missing	System	5	
Total		30	

Source: Survey data 2012

Table 22 above shows that most people (92%) regarded the use of design as important in promoting company image.

Table 23: Use of design to realize savings in variable inputs

		Frequency	Valid percent
Valid	Yes	22	100.0
	No	2	8.3
	Total	24	100.0
Missing	System	6	
Total		30	

Source: Survey data 2012

Table 23 shows that all of those responding believed that design can make savings in variable inputs such as raw materials.

Table 24: Do production methods influence design?

		Frequency	Valid percent
Valid	Yes	12	66.6
	No	0	0.0
Missing	System	18	100
Total		30	

Source: Survey data 2012

From above table, it is seen that 67% recognized that production methods had an influence on product design.

Table 25(a): How much do companies adhere to quality systems?

		Frequency	Valid percent
Valid	Yes	22	88.0
	No	3	12.08
	Total	25	100.0
Missing	System	5	
Total		30	

Source: Survey data 2012

Table 25(b): Is the accounting team used at the concept stage of New Product Development (NPD)

		Frequency	Valid percent
Valid	Yes	11	52.4
	No	10	47.6
	Total	21	100.0
Missing	System	9	
Total		30	

Source: Survey data 2012

Table.25(c): Is the design process monitored in new projects?

		Frequency	Valid percent
Valid	Yes	15	88.8
	No	2	11.7
	Total	17	100.0
Missing	System	13	
Total		30	

Source: Survey data 2012

From table 25(a-c) teamwork is commonplace in NPD and one half 52% of those questioned use accountants at the concept stage of new projects. 89% monitor the design process.

Table 26(a): Company performance compared with nearest competitors

		Frequency	Valid percent
Valid	Better	16	88.8
	About the same	5	27.7
	Worse	3	5.6
	Total	18	100.0
Missing	System	12	
Total		30	

Source: Survey data 2012

Table 26(b): Product performance compared with nearest competitors

		Frequency	Valid percent
Valid	Better	16	69.6
	About the same	6	26.0
	Worse	1	4.3
	Total	23	100.0
Missing	System	7	
Total		30	

Source: Survey data 2012

Table 26 (a & b) above shows that for most people the performance of products and the company is synonymous. 89% rate their performance as better than the nearest competitors and one quarter (28%) a similarity in performance. Only three respondents believe company performance to be worse and one thought that product performance was worse.

Table 27: Cost management technique used

		Frequency	Valid percent
Valid	Target costing	6	20.0
	Total cost	1	3.3
	Benchmarking	1	3.3
	Reverse engineering	1	3.3
	Target functionality	1	3.3
	None	9	30.0
	Total	20	66.6
Missing	System	11	36.6
Total		30	100.0

Source: Survey data 2012

Target costing is the most popular method of cost management in NPD, although one company used benchmarking and another worked on total costing. From table 27 above, one third of those interviewed (30%) didn't use cost management techniques although the same number recognized that 90% or more of a products direct cost are 'designed in' during the development process.

Table 28: Company Orientation

		Frequency	Valid percent
Valid	Design	4	17.3
	Marketing/sales	11	47.8
	Production oriented	4	17.3
	R&D	2	8.7
	Financially driven	2	8.7
	Don't know	1	4.4
	Total	23	100.0
Missing	System	7	
Total		30	

Source: Survey data 2012

In Table 28 above 46% of those interviewed believe that their company is market or sales driven, 17% design or production oriented, 8% finance or R&D driven.

FINDINGS

Some notable findings derived from responses from management accountants in food and drinks industries are identified below:

- ❖ The separation of costs into variable and fixed components was acknowledged to be at least moderately important by 84% of respondents and in almost half the companies the distinction is often or very often applied. This contrasted with lower levels of importance and usage of ABC and other full costing techniques. 21% of respondents indicated that they very often separate costs into incremental and non-incremental costs while the equivalent

combined frequency for use of departmental and plant-wide overhead rates is only 17%.

- ❖ Budgeting for planning and control is either important or moderately important for more than 90% of companies. It was interesting that a high proportion (31%) does not flex or amend their budgets for changes in volumes or other factors, but work only with fixed budgets. This is mitigated by the result that 'what if' budget analyses are applied at least 'sometimes' by 71% of respondents. Activity-based budgeting, in common with activity-based costing, has higher ratings of importance than actual usage (based upon a comparison of important or moderately important as against very often, often and sometimes).
- ❖ Over three quarters of companies consider financial measures of performance to be fully important. Non-financial performance measures are also highly important, especially in connection with customer satisfaction. However, despite this importance, some 40% of companies reported that they never or rarely actually used non-financial measures of performance in connection with customers, operations, innovation or employees. We get here an impression that the balanced scorecard is more talked about than applied, and that performance measurement is still very much dominated by financial figures.
- ❖ CVP analysis is considered to be at least moderately important by a high proportion of respondents – a finding which ties in with the prominence, mentioned above, that is given to splitting costs into fixed and variable. As expected, the majority of companies apply product profitability analysis frequently. What is perhaps more interesting is that 54% indicated that customer profitability analyses are conducted either often or very often.
- ❖ Skepticism was found about direct capital investment appraisal as compared with earnings-based or payback methods. This finding was corroborated by the fact that 44% of respondents indicated that calculation of cost of capital was not important in their companies. Non-financial factors relating to capital projects are perceived to be either important or moderately important by 83% of respondents, but only 34% of companies often or very often report and document such factors – a finding which may be biased by the fact that major capital investments are rare.
- ❖ Strategic analysis techniques 'come across' as moderately important but are mostly not very frequently applied. The high ranking of importance, relative to the ranking of frequency of use, of analysis of competitive position (and competitors strength and weaknesses) and of value chains suggests that the application of

these practices may become even more common.

CONCLUSION

The aim of this study has been to investigate the current state of management accounting system in the very large but under-researched Nigerian food and drinks industry. The results of this in-depth investigation covering budgeting, performance evaluation, costing, decision-making, communication and strategic analysis led to the conclusion that traditional management accounting is still very much alive and well in Lagos state food and drinks companies.

According to (Cooper and Chew, 1996), target costing offers a way of focusing product development strategy and the design team on the customers, bringing the challenge of the market place back through the chain of production to product designers and that aggressive targets focus the Engineers' efforts on creative solutions. In other words, target costing demands that design and development teams bring profitable products to market at the right price and with the right level of quality and functionality. Therefore, it is also important to conclusively state that the role of the manufacturing manager should be well complimented by others as it relates to cost estimation, production and productivity

RECOMMENDATION

As stated by Mann et al (1999) 'For the food industry to move forward... more companies should consider using self-assessment as a method for identifying improvement opportunities and assessing their progress towards business excellence.' This may be increasingly imperative for the Nigerian food sector if trade liberalization continues to lead to greater international competition 'the food industry has not been exposed to the same degree of international competition as some other industries'. Given that there is some validity in this approach, it is recommended that companies benchmark themselves against the management accounting system in different stages of evolution and consider adopting 'more advanced' practices (such as the value creation ones).

REFERENCES

Adejuyigbe S.B. (2002): Production Management: Design, Planning, Implementation and Control

Adeniyi T.O. (2001): Essentials of Management Accounting, Cedar Productions O.A.U

Berniler, C. and Brimson, J. (1988): Cost Management for Today's Advance Manufacturing: Harvard Business School.

Bihimani, A. and Brimsom, J. (1989): Advance Manufacturing Technology and Strategic Perspectives in Management Accounting. European Accounting News. 21-23

CIMA (2000): Management Accounting Official Terminology, The Chartered Institute of Management Accountants.

Cooper, R. and Chew, W. B. (1996): Control Tomorrow's Cost Through Today's Designs, Harvard Business Review, January/February 1996, pp. 88-97.

Drury, C. (1996): Management Accounting Handbook, Butterworth-Heinemann.

Fashina, A. L. (1974): Management Accounting and Investment Decisions for Industries. Hope publishers, Bariga, 1974.

Horngren, C.T and Forster, G. (1991): Cost Accounting: A Managerial Emphasis (7th Edition). Prentice Hall, New Jersey.

Horngren C. T., Forster G., and Datar S. M. (1997): Cost Accounting: A Managerial Emphasis (9th Edition). Prentice Hall, New Jersey..

Johnson, H. and Kaplan, R. (1987): Relevance Lost – The Rise And Fall Of Management Accounting. Harvard Business School Press, Boston, MA.

Kajola, C. and Emmanuel, C.R. (1999): Accounting for Management Control, 2nd Edition, Boses Publishers, Nigeria.

Kaplan, R. and Norton, D. P. (1996): Linking The Balanced Scorecard To Strategy. California Management Review. July, 1996.

Kaplan, R.S. (1984): The Evolution of Management Accounting, The Accounting review, Vol. 59, no.3. pp. 390-418

Mann, B. J., Drury, C. (1999): Management and Cost Accounting, 2nd Edition, Van Nostrand Reinhold, London.

Otley, D. (1995): Management Control, Organizational Design And Accounting Information Systems, In Ashton, D., Hopper, T. and Scapens, R. (eds.), Issues in Management Accounting, Prentice Hall, London.

Shamar, P. C. (2006): A Textbook of Production Engineering: S. Chand & Company Ltd. Ram Nagar, New Delhi 2006.

Ward, K. (1992): Strategic Management Accounting. Oxford, Butterworth-Heinemann.