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PROCESS CONTROL AND BUSINESS PERFORMANCE IN QUOTED MANUFACTURING COMPANIES IN NIGERIA

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ABSTRACT: *This paper seeks to examine the influence of process control on business performance of quoted manufacturing companies in Nigeria. Survey research design was adopted. Three (3) tentative assertions, hypotheses were formulated. The sample size was thirty-two (32) quoted manufacturing companies in Nigeria. Pearson product moment correlation and QSR-Nvivo aided the quantitative and qualitative data analysis respectively. The study findings indicated that process control has very positive relationship with business performance. In conclusion, profitability, effectiveness and efficiency adoption as proxies of business performance has been proven to be largely a function of process control. The study recommends that manufacturing firms should increase the control measure in the work process to ensure conformity and avoidance of deviations, in order to achieve higher performance in their operations.*

KEYWORDS: Process control, Efficiency, Effectiveness, Profitability, Triangulation.

INTRODUCTION

One of the principal objectives of every business owner is the achievement of effective performance in business operations. In pursuance of the business performance objective, it is expected that the business has sustainable development in terms competitive strength and dominance in the industry overtime. An indication of poor performance in business may conversely imply revenue stagnation, low level of operations, low output level and fixed market share.

Business is adjudged to have performed effectively, when a firm identifies suitable opportunities and then uses its available strength to exploit the opportunities to its advantage. In some way, the advantage may lead to progress and success of the firm. Thompson and Strickland (2001) argued that in the context of identified opportunities, firms take advantage of the consequential growth, allocation of resources and dynamic change processes, which are central factors that are necessary elements for the understanding of the firm's development and performance.

Penrose (1959) viewed business as a pool of internal and external resources to stimulate performance. It is her contention, that the main task of the business operations and the source of performance are to utilize internal resources and resources acquired externally in a way to ensure maximum profit. This implies that the competence on the part of management (including internal process control) and the organisation are of vital importance in order to secure improved performance.

The more effective use of resources, as expressed in Penrose (1959) tends to emphasize internal business control process mechanism, as a critical prerequisite to the firms performance and even that of the economy as a whole. The above contention is corroborated with the arguments of Govindarajan and Anthony (1995) and Daft (2000). They acknowledged that adequate internal procedural control enhances the performance of business organisation.

Theoretical postulations and empirical research endeavours abound on internal control and performance in the hospitality, service, insurance, construction and production firms. But little is known about investigations on process control and business performance. Other existing, empirical contributions by scholars were not focused on the performance measures adopted in this study. Therefore, a gap in knowledge existed. There are similar studies carried out in manufacturing firms, but most of the firms studied are not quoted in the Nigerian stock exchange. It is against this background that this study seeks to determine the extent to which process control influences business performance in quoted manufacturing companies in Nigeria.

In discussing the issue of justification of this study, the country's trading partners' expectations remained unrealizable, against the backdrop of ineffective manufacturing sector. The situation compelled the country to depend heavily on imported manufactured goods. Most manufacturing concerns were established, but due to the attendant problems, they dwindle within a short period of their commencement and prematurely meet their decline stages. Consequent upon these developments, the value of the nation's currency is being devalued, when compared to major currencies of the developed and developing economies of the world. These situations justified the empirical investigation of process control influence on performance of firms in the manufacturing sector.

LITERATURE REVIEW

This paper considered process control and business performance, examined possible theoretical relationship.

Process is a description of stages involved in achieving an objective or goal, whereas control is a process of monitoring performance and taking action to ensure desired results. Thus, process control is function which management of organizations adopt to influence other members of the organization in the implementation of its strategies. It is the means employed for the achievement of management goal (Oluyemi 1998). It appears undisputable, however, that process control helps in ensuring that overall direction is consistent with short, intermediate and long range plans. The monitoring of performance, placed alongside plans with comparison over the passage of time or operational periods is facilitated by process control. It appears that the action objective and performance accomplishments at various levels and among various units in an organization, by means of control are made consistent with one another. Thus, it tends to ensure compliance with basic organizational rules, policies and respect for others, therefore process control is necessary.

According to Ackoff (2000), process control involves four steps which include: (1) Predicting the outcomes of decisions in the form of performance measure; (2)Collecting information on actual performance;(3)Comparing actual results with predicted performance and (4) When a decision is shown to have been deficient, correcting the procedure that produced it and correcting its consequences when possible. From these, it seems obvious that the process control basically entails checking or monitoring the allocation of resources, measuring performance against set standards, obtaining feedback on results, evaluation of constraints and plan in the light of emerging scenarios and correcting deviation from the standards.

It can therefore be argued that the steps identified above appreciate and actually encapsulate the following control measures, without which they will not be effective: (1)Measurement of performance against predetermined objectives, planned standard; (2)Communication (reporting) of results of the measurement process to appropriate managers; (3) An analysis of the deviations from the objectives, plans, policies and standards in order to determine the underlying causes and (4) Consideration of alternative courses of action that may be taken, to correct deficiencies and to learn from successes achieved. Choice and implementation of these measures may enhance the effectiveness of the corrective action taken, and the feedback of information to the process of administrative control.

Lucey (1987) buttressed the definition of Consultative Committee of Accounting Bodies (CCAB), argued that internal control is the whole system of controls, financial and otherwise, established by the management in order to carry on the business of an enterprise in an orderly and efficient manner, to ensure adherence to management policies, safeguard the assets and secure as far as possible the completeness and accuracy of the records. According to Govindarajan and Anthony (1995), process control recognizes that management control system which goes beyond matters relating to financial department functions, appears relevant in every organization. The existence of such measures encourage promotion of operational efficiency, adherence to prescribed management policies, and by extension ensures that actual performance is consistent with plans.

However, the enhancement of business performance appears to be born out of an organization's process control, which is based on action, designed to prevent problems, correct problems, and possibly explore opportunities. When standard policies are in place, the performance of business tends to naturally flourish. Lucey(1983) argues that "ideal standards are those based on optimal operating conditions, devoid of breakdown, wastage, stoppage and idle time". Therefore, management establishes the internal audit department, which acts as a mechanism for implementation of basic elements of process control. These elements include: The establishment of performance objective and standard, the measurement of actual performance, the comparison of actual performance with objectives and standards, and taking necessary or corrective action.

Schermerhon et al (1988) argued that process control occurs through self-discipline and personal exercise of individual or work group responsibility. In the organizational context, it is relevant when the group or organization's management, determines how things should be done and it exercises organizational discipline in accomplishing performance results. 0wolabi and Obida (2012) conducted a study on liquidity management and corporate profitability and they stated that an organization having a proper set of liquidity management policies, processes and procedures will improve its earnings , reduce the risk of corporate failure and significantly improve its chances of performance and survival.

Adewuyi (1991) argued that establishment of a strong and effective internal audit unit with the powers to raise alarm is an essential character of a process control system. This of course, appears necessary in order to implement the desire for complete and continuous audit of accounts and records of revenue, expenditure, plant, allocated and unallocated stock. Thus, Process Control involves comparison of objective with the needs of the organization, identification of activities not meeting objectives. Given these measures, it implies that when the use of investment appraisal is adopted in an organization, it can be classified as a means of control. Thus, act of project monitoring, implies the placement of actual results against initial projected operating results. Therefore, it is important for an organization to analyse control and reporting systems and alert managers on the need for corrective action. From the foregoing we tend to understand that if an organization institutes process control regime in its operations, injury resulting from plant or operational tools, will also be minimized and by extension loss of human life at the work place prevented. It may further ensure the attainment of overall organization's goals and objectives. However, beyond these overt consequences of process control, the obvious consciousness of its existence may guide work attitude. Thus, within the audit function framework, such guide becomes the reference with which actions are adjudged as right or wrong within an organization. On that premise, the following tentative assertions were presented:

H_{A1}: Process control has a significant relationship with business profitability.

H_{A2}: Process control has a significant relationship with business effectiveness.

H_{A3}: Process control has a significant relationship with business efficiency.

METHODOLOGY

The survey research design was adopted. The study covered thirty-two (32) quoted manufacturing companies in Nigeria. Data was collected through questionnaire, personal interviews and secondary materials. Nomothetic and ideographic approaches were adopted. Descriptive and inferential statistics were used to analyse quantitative data. The Pearson product moment correlation aided by the statistical package for social sciences (SPSS) was used for quantitative data analysis, while the QSR NVIVO aided the analysis of the qualitative data generated.

RESULTS

Table 1. Correlation Analysis of Process Control and Profitability

Variables	Statistics	PROCESS COTNROL	PROFITABILITY
PROCESS CONTROL	Pearson Correlation	1	.375*
	Sig. (2-tailed)		.048
	N	32	32
PROFITABILITY	Pearson Correlation	.375*	1
	Sig. (2-tailed)	.048	
	N	32	32

* Correlation is significant at the 0.05 level (2.tailed)

The result in the above table shows that r= 0.375*. This shows a moderate relationship. However, the positive value of r shows that there existed a positive relationship between process control and profitability. This means that increase in process control increased profitability within the period under review and in the organizations studied. The relationship however, is statistically significant at 0.05 significant level. This is because the probability value PV = 0.048 which is less than 0.05. Given this outcome, therefore the hypothesis which states that process control has a significant relationship with profitability is hereby accepted.

Table 2. Correlation Analysis of Process Control and Effectiveness

Variables	Statistics	PROCESS COTNROL	PROFITABILITY
PROCESS CONTROL	Pearson Correlation	1	.450**
	Sig. (2-tailed)		.010
	N	32	32
EFFECTIVENESS	Pearson Correlation	.450**	1
	Sig. (2-tailed)	.010	
	N	32	32

**Correlation is significant at the 0.01 level (2-tailed).

The result above shows a correlation value of 0.450**. This implies a moderately strong relationship, it also implies that an increase in process control increased effectiveness in the studied organizations. This value is also statistically significant at 0.01 level of significance (PV=0.010).

The hypothesis which states that "process control has a significant relationship with effectiveness" is therefore accepted. The relationship between process control and all the indices of business performance is statistically significant at 0.05, 0.01 and 0.01 significant levels. It goes to say that process control has significant relationship with business performance.

Table 3. Correlation Analysis of Process Control and Efficiency

Variables	Statistics	PROCESS COTNROL	PROFITABILITY
PROCESS CONTROL	Pearson Correlation	1	.556**
	Sig. (2-tailed)		.001
	N	32	32
EFFICIENCY	Pearson Correlation	.556**	1
	Sig. (2-tailed)	.001	
	N	32	32

**Correlation is significant at the 0.01 level (2-tailed).

The correlation value of 0.556** as shown in the table above indicates a relatively strong relationship between process control and efficiency. The positive sign shows that increase in process control increased efficiency. It is however statistically significant at 0.01 level of significance (PV = 0.001) and it is flagged significant by the SPSS output above. Therefore, the alternate hypothesis, which states that "process control has significant relationship with business efficiency" is accepted.

The three hypotheses were tested using Pearson's product moment correlation coefficient (r). These hypotheses test are shown in tables 1, 2 and 3. These hypotheses were: H_{A1}: process control has a significant relationship with business profitability; H_{A2}: process control has a significant relationship with business effectiveness; and H_{A3}: process control has a significant relationship with business Efficiency. All the formulated research hypotheses were accepted on the ground that their P values and r values met the standard for our acceptance ($r < 0.20$), following the results of this analysis, it was found that process control is positively related with business performance. Therefore, process control has very significant, positive influence on Business performance.

Beside the quantitative analysis, qualitative analysis using the QSR NVIVO statistical software package was also conducted. The findings deduced from the analysis indicated that Process control influences efficiency, profitability and effectiveness.

Triangulation paradigms adopted

The adoption of mixed methodological paradigms in social research studies have been emphasized for about a decade. Neuman (2000) argued that research methodological triangulation, which entails the use of Nomothetic and ideographic approaches of data collection and analysis, would enrich the outcome of most social or management sciences research endeavour.

It is acknowledged, that in adopting the triangulation process, one method is expected to be dominant, while the other should be supportive. In view of these contentions, we have adopted the quantitative method, as well as the qualitative method. These applications have been concurrently adopted. Although, there are the successive and step-wise methods of triangulation, we found the concurrent triangulation most appropriate for this study. Sekaran (2003) had advanced the expediency required, in adopting the main and supportive approaches. Therefore, in this study, we have the nomothetic methodology as dominant while the ideographic methodology is supportive. This action contributed to a large extent the desired enrichment, scientific rigors and reliable outcome of this research work.

DISCUSSION

In discussing the findings drawn from the interpretations of our results. One major finding drawn from the interpretation of the result of our analysis is the positive effect of process control on business performance. We sought to find the extent to which process control influence business performance as measured by profitability, efficiency and effectiveness in quoted manufacturing companies. From the test results, we found out that process control positively and significantly influence profitability, efficiency and effectiveness. This is shown in the high correlation value in tables 1, 2, and 3.

However, our finding that process control positively and significantly influence business performance is within the scope and trend of findings of previous studies. For instance, Oluyemi (1998) Ackoff (2000) and Govindarajan (1995) share the view that process control constitute set of activities that enhance the growth of business. Specifically, Oluyemi (1998) argue that process control is an audit function which management of organizations adopt to influence other members of the organization in the implementation of its strategies. The implication of strategy implementation as argued in Oluyemi (1998) depicts process control as the means employed by manager for the achievement of business goals which profitability, effectiveness, and efficiency are significant parts. Specifically, still Oluyemi (1998) argument share some issues with Ackoff (2000) who contends that the action objective and performance accomplishments at various levels and among various units in organizations by means of control are made consistent with one another. This points to the fact that process control tends to ensure compliance with basic organizational rules and policies.

Also, our finding that process control positively impacts on profitability, effectiveness and efficiency found support in Ackoff (2000) where it was argued that process control involves four steps: predicting outcomes of decisions in the form of performance measure; collecting information on actual performance, comparing actual result with predicted performance and correcting deficient decision on a feed back basis. Similarly, Govindarajan and Anthony(1995) the existence of such measures encourage promotion of operational efficiency, adherence to prescribed management polices, and by extension ensure that actual performance is consistent with plans.

These contentions positively point to the direction of our findings because control brings about efficiency and effectiveness in business operations. These in turn, tend to produce profitability – financially or otherwise. As Lucey (1988) put it: “ideal standards are those based on optimal operating conditions, devoid of breakdown, wastage, stoppage and idle time”. By extension, the avoidance of the negative tendencies in business are clear indications of profitability, efficiency and effectiveness.

CONCLUSION

From the postulations and inclination of the findings of the study, we conclude that business performance in manufacturing companies is largely of function of control of the business process involved. We further postulate that if an organizations institute process control measure in its operations, injury resulting from plant or operational tools, will also be minimized and by extension loss of human life at the work place prevented. Finally, process control tends to ensure compliance with basic organizational rules and policies. The business performance of manufacturing firms in Nigeria is largely a function of process control.

REFERENCES

Ackoff R. Z . (2001). *A concept of corporate planning*, New York. John Wiley and Sons.

Adewuyi, A. (1991) Profit planning, process control and budgeting. *Journal of the Institute of Chartered accountant of Nigeria*,5(1),50-53.

Daft, R. (2000) *Organization theory and design* .Australia. West publishing Co.

Govindaragan, V. Anthony R (1995). *Management control systems* .New York: McGraw-Hill Inc.

Lucey T. (1987). *Management accounting.* International student edition. London D. Publication Ltd.

Lucey, T. (1996). *Management accounting.* Hampshire DP Publication.

Oluyemi S. A (2004). Supplementary budgetary in Nigeria; Impact and problem. *Journal of the Association National Accountants of Nigeria*.

Oluyemi, S. A (1998). The implication for bank profitability: Implementing the risk-based capital requirement *NDIC Quarterly Report* 6(1).
Penrose, E. T. (1959). *The theory of the growth of the firm.* Oxford: Basil Blackwell.
Penrose, E. T. (1995). *The theory of the growth of the firm.* Oxford: Oxford University Press.
Schermerhorn T.A. (1988) *Management for productivity* Montreal: cataloguing publication.
Sekeran, U. (2003). *Research methods for business; A skill building approach* .New York. John Wiley.
Thompson, A. and Stricklad A. J. (2001). *Strategic management: concept and cases* .Boston: McGraw Hill.