

The Impact of Effective Work Design in Achieving Profitability in Organization

(A Case Study of Selected Companies in Nigeria)

Robert Uma Sunday

Department of Accountancy
Plateau State Polytechnic, Barkin Ladi

Gadi Dung Paul

Department of Business Administration & Management
Plateau State Polytechnic, Barkin Ladi
jsstature@gmail.com

Abstract: *Work design or job design is very important and so viable that organizations cannot do without it. If such organizations want to succeed and even achieve their goals and objectives, reliance on the skills and knowledge of their operations and employees to deliver products and services to the market place is an imperative. Deploying and sustaining a highly technical job design for the organization requires a strong management commitment towards effective initial and on-going operations. As a result of focusing on the need for employees to work to their full potential, manufacturing industry system efficiency will be optimized and the retention of workers strengthened. The problem under focus was to assess the impact of effectiveness of work design on profitability, using Selected Companies in Nigeria as a case study. Furthermore, the data obtained from secondary sources were analyzed and the hypothesis formulated tested using regression analysis. The result from the hypothesis tested revealed that there is a significant relationship between investment in work design and profit of Selected Companies in Nigeria. Based on our findings we recommended that: Companies should always remember to consider the potentials of its work design at the organization, activity, and individual levels, rather than outsourcing the designing of its work, Companies should train their employees. Finally, since investment in work design enhances company's profit, the companies under review and indeed other sectors as well should invest more in the designing of their jobs.*

1. INTRODUCTION

In the past three decades, research on work design has played a critical role in building a bridge between theory and reality. Relevant works such as the job characteristics model (Hackman & Oldham, 1976, 1980), socio-technical systems theory (Trist, 1981; Pasmore, Francis, Haldeman, & Shani, 1982), action regulation theory (Hacker, 2003), and the interdisciplinary work design framework. As a result, researchers have accumulated extensive insight about the diverse task, knowledge, and physical characteristics of jobs; the psychological and behavioral effects of work design; the mediating mechanisms that explain these effects; and the individual and contextual factors that moderate these effects (e.g., Fried & Ferris, 2009; Grant & Parker 2009). Existing research appears to paint a comprehensive portrait of the nature, antecedents, mechanisms, consequences, and boundary conditions of work design, as well as providing a clear, robust set of guidelines for practitioners to design work to promote employee performance and well-being. Accordingly, there has been a reduction in interest among researchers in exploring issues in work design, stemming from a shared belief that most of the important theoretical and practical questions in work design research have been answered (e.g., Ambrose & Kulik, 1999). However, a number of scholars have recently pointed out that current theoretical models and empirical studies of work design no longer reflect and have yet to integrate the impact of the dramatic changes in work contexts that have occurred over the past few decades (Grant & Parker, 2009). These changes include a shift from a manufacturing to a service-oriented economy; an increase in the scope and importance of the knowledge-based industry, and the 'knowledge workers' who are exposed to challenging cognitive demands; an increase in emotional and interpersonal tasks in

service work; an increase in task interdependence and the use of teams; significant growth in globalization and global operations across different countries, societies and cultures (Grant & Parker 2009); and the growing use of continued breakthrough technology and flexible work methods ranging from virtual teams to teamwork as a basis for operations. All of these developments, however, are related with additional unpredictability and uncertainty. At the same time, the nature of the workforce itself is changing enormously, with an increasing number of women participation, extreme ethnic diversity. These changes give rise to new questions about the nature, effects, and design of jobs (Grant & Parker 2009). Researchers have begun to consider how these changes may affect job design theory, research, and practice. For example, they have drawn attention to the increased importance of social and relational characteristics of jobs (Molinsky & Margolis, 2005) and they have accentuated the active role that employees play in taking the initiative to alter the task and relationship boundaries of their own jobs. However, relatively few major steps have been taken to break theoretical and empirical ground to orient work design research toward fresh topics. The aim is to motivate scholars to refocus on work design as a major area of research in the emerging and increasingly complex world of work. "Putting job design in context" in the 21st century requires the incorporation of cross-cultural perspectives, cross disciplinary, and cross-level.

Traditionally, organizations have approached job performance and system efficiency through staff development and training. Training continues to be an important part of the appropriate utilization of human resources but underutilization can be influenced by many variables. While nursing literature suggests personal, professional and organizational barriers prevent nurses from enacting their full scopes of practice, organizational literature identifies that underutilization can also be related to the design of the work. Restructuring the design of work offers opportunities to enact full scopes of practice, minimize performance uncertainty and performance pressure, boost work satisfaction and work motivation, foster high quality work performance and promote effective delivery of care. The purpose of this paper is to summarize job design theory and to identify concepts and principles associated with an approach to work redesign. With a thorough understanding of the literature from other disciplines with more expertise in work design, such as organizational development and human resource management, conceptualization of a meaningful approach to work redesign can be placed in the context of manufacturing. It should be noted that the focus of the literature review is to be illustrative of concepts associated with work design.

2. STATEMENT OF THE PROBLEM

Employee stock option plans, employee profit sharing plans, teamwork, flex-time, working at home and other innovative work practices became mandatory for high tech companies during the late 1990s. Naturally, these notions spread to other industries. More importantly, they spread from newly public companies to start ups and other privately owned enterprises. Firms frequently give work assignments to a group of employees (or "team") and hold all members of the group jointly accountable for the outcome of their assignment. In fact, firms often adopt such a strategy even when it is technologically feasible to give the same work assignment to a single worker and hold the worker solely accountable for his own performance (Bartol and Hagmann, 2011; Shaw and Schneier, 2012). Such a practice may seem counterintuitive because team performance can obscure individual contributions and blunt incentives. There is a vast literature on agency theory that studies the optimal incentive provisions in teams, but Corts (2007) is perhaps the first to explore how, in a multitasking environment, team assignment may arise *endogenously* when individual assignment is still a technologically feasible option. Corts (2007), argues that team assignment may optimally balance the trade-off between mitigating the multitasking problem and exposing the workers to a higher performance volatility.

However, the effectiveness of job design in achieving profitability in the Nigerian manufacturing industry is yet to be attended. Also, ascertaining whether or not any significant relationship exists, between investment in job design and profit is still a nightmare to them. Besides, the challenges inherent in designing the job that will yield optimal result (profitability) are yet to be tackled by the companies.

IN the light of the above, the impact of effective of work design in achieving profitability in organization, using selected companies as a case study.

3. RESEARCH QUESTIONS

This work aim to achieve the following:

- How effective is work design in achieving profitability in organization?
- Does work design enhance productivity of Companies?
- If there is any significant relationship between investment in work design and profit?
- What are the challenges inherent in the work design?

4. OBJECTIVES OF THE STUDY

- To determine the effectiveness of work design in achieving profitability in organization.
- To ascertain how work design enhances productivity of Companies.
- To find out any significant relationship between investment in work design and profit

To examine the challenges inherent in the work design.

5. RESEARCH HYPOTHESIS

Hypothesis I

HO: There is no significant relationship between investment in work design and profit of companies.

6. CONCEPT OF WORK OR JOB DESIGN

Work or Job design is defined as “the content, methods and relationships of jobs in order to satisfy work requirements for productivity, efficiency and quality, meet the personal needs of the job holder and thus increase levels of employee engagement (Armstrong 2009). Job design has also been defined as “the process to optimize organizational goals of efficiency and productivity and how workers can be satisfied doing it, optimizing individual goals of personal growth and wellbeing (Nmdu 2013). The meaning derived from these definitions refers to work design as something that is used and decided upon by managers of the organization. Organizational literature offers two theoretical viewpoints to guide the restructuring process, namely work design and system redesign (Dienemann & Gessner, 1992). Work design is concerned with the content of the job that an individual or group undertakes, i.e. the roles and tasks they fulfill, as well as the methods that they use to complete their work (Holman, Clegg, & Waterson, 2002; Birnbaum & Somers, 1995). System redesign is concerned with the design of the entire department or organization and even the entire health care system. Both work design and system redesign have advantages and disadvantages. In nursing, job design strategies are often easier to implement since they focus on the job of the nurse and rarely have substantial impact on the jobs of other professional groups within the organization. Although there may be resistance to changes in the distribution of work or the nature of work, changes in nursing practice fall within the scope of nurses’ practice, work design is often a precursor to any attempt to engage in system redesign. In contrast, system redesign is more radical as it has implications not only for the role of the nurse but also the roles and relationships of other health care professionals. This level of change requires cooperation across the entire organization and is much more difficult to accomplish.

7. WORK CHARACTERISTICS

Work or Job characteristics as propounded by various scholars are discussed below:

Skill Variety: Hackman and Oldham (1980) defined skill variety as the opportunity to use a number of valued skills and abilities. Some work design literature has argued that enriched or complex jobs promote increased satisfaction and motivation while others report that organizational climate moderates the relationship between job satisfaction and job complexity (Ferris and Gilmore, 1984) Nurses’ jobs are known to be high in skill variety and thus require attention to organizational supports including opportunities for new skill acquisition, continues training and development as well as attention to standards of skill competence.

Role identity: Role identity has its roots in the job characteristic named task identity as identified by Hackman and Oldham (1980). It is important within nursing to not focus on individual tasks

but to focus on objectives, desired outcomes and accomplishments. A job should be seen as a group of positions that are similar in their significant duties (Nmaadu 2013). Task identity needs to be broadened to role identity for nurses. Role identity has implications for nurses as they determine 'whose role is what' when collaborating with other health care providers.

Work Feedback: Feedback from the job reflects the degree to which the job provides clear and direct information about one's effectiveness of performance (Hackman & Oldham, 2013). In nursing, feedback includes feedback from others such as patients, co-workers and supervisors and affords nurses the opportunity to monitor their performance. Work feedback can assist nurses with understanding their impact on the patient/client, program, organization and health care system in general. Work feedback can also be linked to reflective practice.

Accountability: Laschinger & Wong (1999) describe accountability as the "willingness to be answerable for one's actions". It is viewed here as a job qualities associated with nursing as the nurse has a professional responsibility to be accountable for the care they provide. One will recall that Hackman & Oldham (1980) identified that responsibility as a psychological state must be activated for optimal job satisfaction, motivation and work performance to be achieved. Laschinger & Wong (1999) suggest that to be responsible and accountable, employees must have not only the competency to provide service but also the authority to provide service on the basis of their professional knowledge and judgement. Laschinger & Wong (1999) suggest that the way employees experience empowerment has a direct effect on work effectiveness as well as an indirect effect through employee perception of accountability. This highlights the importance of work environments which empower nurses to optimally provide care and assume accountability for patient/client outcomes.

Empowerment: Empowerment is suggested here as a work characteristic rather than as an outcome of a well-designed job because of the factors that influence empowerment. Laschinger, Finnegan, Shamian and Wilk (2003) summarize empowerment theory into two themes, namely psychological and structural. The first theme, psychological empowerment, relates to perception of empowerment and increased intrinsic task motivation which is influenced by the psychological variables of choice, competence, meaningfulness and impact. Choice (or self-determination) refers to using one's judgment and taking responsibility for one's actions. Choice could also be related to one's feelings of control over work. Competence is the degree to which one can perform skillfully. Meaningfulness refers to value-added of one's work. Impact refers to the degree to which one's actions are seen as making a difference. These variables are similar to the three psychological states defined in the Job Characteristics Model - i.e. experienced meaningfulness, knowledge of results, and experienced responsibility. The second theme, structural empowerment, relates to the structural variables that impact on empowerment. As discussed under accountability, these include having access to resources as well as information, receiving support and having opportunities to learn and grow. Although these structural variables enhance empowerment, empowerment is not something that one can give to someone else. It is a recognition and application of the power that is already present in a job (O'Grady, 2014). To further enhance empowerment, roles and expectations must be clear.

Knowledge: Knowledge is a work characteristic that was not uniquely identified in the literature but is identified here as a characteristic to address concepts such as decision-making, problem solving, information processing, innovation idea generation and even specialization. Of interest is Wrezesniewski and Dutton's (2001) concept of cognitive task boundaries which refers to understanding how one sees their job, that is, as a set of discrete pieces or as an integrated whole. Thus, knowledge work requires continuous learning and teaching by the knowledge worker (Drucker, 1999). Knowledge and decision-making are influenced by accountability and control. Greater autonomy will enhance the acquisition and utilization of knowledge (Holman, 2002). In highly autonomous settings, employees learn to anticipate and prevent errors as well as dealing with variances (Burr, 2001).

Interdependence: In work design literature, interdependence refers to the degree in which a job depends on others or others depend on it to complete the work. Kiggundu (1981) further defines interdependence by suggesting that interdependence has three dimensions, namely scope, resources and criticality. The potential for increased knowledge and knowledge sharing through collaboration and interaction with others raises the importance of opportunities for

interdependence. On the other hand, Wrzesniewski and Dutton (2001) expect that more interdependence impacts negatively on the opportunity to personally shape or mould one's job. Regardless of which side of the fence one sits with regards to the balance of more or less interdependence, nurses do not work in isolation. They work in a system where they must collaborate, coordinate and integrate care with other health care providers. Integral to this concept of interdependence for nursing are communication and interpersonal skills.

8. WORK DESIGN IN THE FUNCTIONALIST PARADIGM

Work design is defined as “a group of positions that are similar in their significant duties (Nmaadu 2013) Work design has also been defined as “the process by which managers decide individual job tasks and authority” (Donnelly, 2014). The meaning derived from these definitions refers to work or job design as something that is used and decided upon by managers of the organization. For purposes of this paper we will look at how researchers study work design and how organizations have used job design analysis. Researchers analyzing job design from the functionalist perspective rely on gathering information through instruments or tools such as the Job Diagnostic Survey (Hackman & Oldham, 1975) and the Multimethod work Design Questionnaire (Campion & Thayer, 2014). The results obtained depend on quantifying the responses from workers prompted by the JDS and JFDQ instruments. The tools used to analyze work design attempt to tap the worker's outlook on his or her job through a method couched in the scientific method. It is interesting that these tools come from long established beliefs about the instrumentality of organizations. Morgan (1997: 15) states that because of the Industrial Revolution, it's the organization's dependence on tools and machines that required organizations to adapt to the needs of the machines. Thus the information from these tools that was obtained from workers is systematically calculated to produce a “score” which is then used to make predictions about outcomes. Such outcomes generated are employee motivation and satisfaction that are important to the organization. The management or dominant coalition of an organization places a high level of meaning to these outcomes because such phenomena as motivation and satisfaction are assumed to influence organizational performance. It is the organization's performance that drives management or the dominant coalition to place emphasis on the information received from work design analysis. Management is interested in the motivation and satisfaction of the workers because the workers' performance is the means by which organizational goals can be achieved. The performance of the organization may also ultimately reflect on management's ability to effectively manage employees and maintain smooth operations of the organization. So to the extent that management can utilize information that may affect the organization's performance, work design analysis plays an important role in constructing an essential part of that information.

9. WORK DESIGN FROM AN INTERPRETIVIST'S PERSPECTIVE

The interpretivist's perspective strives to obtain understanding about how an individual comes to have their knowledge. The interpretivist paradigm's history stems from the German idealist tradition maintaining that reality is found in the spirit or idea rather than in the data of sense perception (Burrell & Morgan, 1979). The interpretivist researcher, however, much more than the functionalist researcher concentrates on a framework centering on the participants and how the participants make sense of the world around them. Another characteristic of the interpretivist researcher that deviates from the functionalist framework is the relationship between the researcher and the participants. The interpretivist opposes the idea of an objective functionalist researcher and holds that the researcher cannot detach himself totally from his work (Burrell & Morgan, 1979). The alternative perspectives ‘emphasize that science is basically a process of interaction, or better still engagement’ (Morgan, 1983: 13). The interpretivist researcher should attempt to place himself as much as possible in the same world of the participants. The researcher's ability to step into the participants' point of view allows a focus on the participant's perspective. Again, it is the participants' way of understanding and way of gaining knowledge that comprises the focus of the interpretivist's work. We will look at the interpretivist framework for analyzing job design from each of the four dimensions that build the assumptions of approaches to social science. The four dimensions of ontology, epistemology, human nature and methodology represent ways in which researchers think about the sociological landscape and

construct ways to conduct their research (Burrell & Morgan, 1979). When a researcher accepts the assumptions of a paradigm and that paradigm's view of the world, the researcher then accepts the research methodology accompanying the paradigm. Each assumption has a polar attribute that represents an objective and subjective nature or view of the world. The four assumptions represent a continuum with the polar views representing extremes and are categorized as subjectivist and objectivist (Burrell & Morgan, 1979). The subjectivist view will correspond with the interpretivist perspective and the objectivist perspective will correspond with the functionalist perspective. For purposes of this paper, the polar extremes will be emphasized for juxtaposing the views.

10. EPISTEMOLOGY

Epistemology from the subjectivist's and interpretivist's standpoint is based on antipositivism, which means that knowledge is built from one's experiences and is not analyzed for purposes of generalizing to overall encompassing laws (Burrell & Morgan, 1979). Epistemology deals with how one comes to know and understand his own world. The assumption regarding epistemology from an interpretivist's perspective would be that knowledge is highly individualized. One's knowledge about work design then cannot simply be packaged, shipped and transferred to another. The participant has come to know his or her job through their own unique experiences. The uniqueness makes chances for replication by another individual unlikely so that no two people will know the job in the same way. The functionalist would assume that the job design stands on its own as a phenomenon without being enacted upon by a participant. Functionalists regard work design as predictable, measurable and can be analyzed through positivism. The functionalist assumes that work design can be known and understood removed from the individual. For example, the knowledge can be transferred in complete form from one person to another person through the use of written procedures.

11. HUMAN NATURE

Human nature portrays the way in which individuals behave in their world. The extreme views are voluntaristic and deterministic from a subjective and objectivist viewpoint respectively (Burrell & Morgan, 1979). The voluntaristic view suggests that individuals are free to act in whatever way they wish in any situation. The deterministic view holds that people are constrained by the social situations of everyday life and thus are not free to act. The totally voluntaristic or deterministic view of work design is somewhat difficult to imagine. Job design as phenomena from the organization's perspective draws a picture of how the individuals should go about accomplishing their tasks which implies the worker is constrained by the work design. The voluntaristic extreme perspective, however, would emphasize that the person has chosen to accept the job and chooses each day to either do or not do the tasks of the job.

12. CONCEPT OF PROFITABILITY

The account-dimension defines all essential cost and revenue items in the system. "Total profit" does not mean that 100 % of the company expenses could be carefully designed in advance. This definition is subjective and depends on the company and the products. For example, product development expenses and subaccounts are relatively higher in telecommunications business than in steel business, compared to manufacturing expenses. On the other hand, distribution expenses need to be considered in both business lines. Every product program manager is responsible for creating a business case calculation and maintaining the changes until the end of the program. This calculation is updated continuously and checked by the program steering group at each milestone. Can we increase company profits by designing profitable product life cycles? "Typically, 40 to 70 percent of the life-cycle costs of high-technology products or systems have been ordained by the end of the conceptual phase" (Michaels & Wood 1989). The authors include the following decisions into the conceptual phase: Functionality and affordability limits established, Product and process concepts selected, Product support approach defined, Design-to-cost organization created and Audit trials instituted. If 40-70 % applies to one product, we can conclude inductively that consolidation of all products and services of the company will result in 40-70 % of the *company costs*. These costs have been ordained during the design phases of each product business case. Thus, the product development process drives most of the company costs. Most of the cash outflow comes from the manufacturing and materials, i.e. the delivery process costs. At this point, the ultimate sales volumes are not known, and it is difficult to judge the absolute value of profitability.

13. METHODOLOGY

The study was undertaken to assess the impact of effectiveness of work design on profitability in Nigeria. To achieve that, secondary source of data was used to obtain the information. Information about the cost of work design of Selected Companies and the profit realized for the periods between 2006 -2010 was used to analyze the data.

14. DATA ANALYSIS AND RESULTS

To ascertain whether or not there is a significant relationship between investment in work design and profit, regression statistical tool was employed.

The SPSS package was used to analyze the data. The results are presented below:

Predictors (Constant), INVESTMENT Dependent variables: PROFIT **Model**

14.1. Summary

| Model | R. | R Square | Adjusted R. Square | Std. Error of the Estimator |
|-------|------|----------|--------------------|-----------------------------|
| 1 | .999 | .998 | .074 | .00861 |

14.2. Coefficients

| Model | Unstandardized Coefficients | Standardized Coefficients | | T | Sig. |
|-------|-----------------------------|---------------------------|------|--------|------|
| 1 | B | Std Error | Beta | | |
| | .265 | .010 | .999 | 26.386 | .001 |
| | 2.981E-08 | .000 | | 29.299 | .001 |

14.3. Interpretation

R, which is 0.999 (coefficient of relationship) explains the strength of relationship between investment in work design and profit. This means that there is a strong positive relationship between the two variables. It therefore implies that if there is a significant drop in investment in work design, there will be a corresponding decrease in profit. R^2 (coefficient of determination) measures forecasting power of the independent variable. Since $R^2 = 0.998$, it means that about 99% of the total variation in y (profit) is accounted for by a 100% increase in x (investment in work design). The values of t - computed for both a and b which are 26.386 and 29.299 respectively show that they are greater than the t - tabulated (1.960). This suggests that null hypothesis be rejected. This implies that there is significant relationship between investment in work design and profit.

15. CONCLUSION

This research study was aimed at assessing the impact of the effectiveness of work design and profitability in the Nigeria's manufacturing industries, taking an empirical study of selected Companies in Nigeria. Concept of work design, work characteristics, theories of work design (work design in a the functionalist paradigm, work design from an interpretivist's perspective), and concept of profitability were discussed. Furthermore, from the hypothesis tested, the result revealed that there is a significant relationship between investment in work design and profitability of manufacturing companies.

16. RECOMMENDATIONS

Based on our findings, we hereby advance the following recommendations:

- Companies should always remember to consider the potentials of its work design at the organization, activity, and individual levels.
- Rather than outsourcing the designing of its work or job, Companies should train their employees.
- Since investment in work design enhances company's profit, the company under review and indeed other companies as well should invest more in the designing of their jobs

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Appendix

Regression Analysis

Variables Entered/Removed

| Model | Variables Entered | Variables Removed | Method |
|-------|-------------------|-------------------|--------|
| 1 | Profit | | Enter |

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimator |
|-------|-------|----------|-------------------|-----------------------------|
| 1 | .988a | .975 | .902 | 4014.44435 |

a. All requested variables entered.

ANOVA^b

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|----------------|----|-------------|--------|-------|
| 1 Regression | 6.386E8 | 3 | 2.129E8 | 13.208 | .199a |
| Residual | 6.386E8 | 1 | 1.612E7 | | |
| Total | 1.612E7 | 4 | | | |

a. Predictors: (Constant), investment

b. Dependent Variable: Profit

Coefficients

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | -2268.323 | 18784.982 | -1.305 | -.121 | .923 |
| loans | -.071 | .203 | -1.382 | -.351 | .785 |
| net assets | -.031 | .030 | 3.647 | -1.052 | .484 |
| | .814 | .992 | | .821 | .562 |
| gross earnings | | | | | |

a. Dependent variable: Profit

AUTHOR'S BIOGRAPHY



Gadi Dung Paul, B.sc Management Science (University of Jos), MBA (University of Jos), M.sc Business Administration (Nasarawa State University Keffi), PGD Information Technology (National open University of Nigeria), NIMN (National Institute Marketing of Nigeria Chartered), NIM (National Institute Management Chartered), PHD Inview (International University of Bamenda Cameroon) H.O.D Business Administration and Management, Plateau State Polytechnic Polytechnic Barkin Ladi, Plateau State, Nigeria.