

# Structural Contingency Factors And Organization Structure: An Empirical Synthesis

**Koyio Levius Matseshe**

Doctoral Student,  
Graduate Business School,  
The Catholic University of Eastern Africa,  
Nairobi, Kenya

**Dr. Robert M. Arasa**

PhD, Senior Lecturer and the Director of Graduate Business  
School, The Catholic University of Eastern Africa,  
Nairobi, Kenya

*Abstract: This study examines factors that determine organization structures. The objective was to examine the extant empirical literature in order to identify the salient factors that influence organization structures. Several studies have been cited revealing that structural contingency framework has for a long while provided the determinants of organization structures. The assumption has always been that structural-contingency framework is deterministic on organization structures. Many of such studies are bivariate, testing the relationships between size, strategy, technology, environment and structure. But the structural contingency framework fails to explain the process by which decisions on structures are reached although it names the factors that have to be considered. This paper concludes that the structural contingency factors are not deterministic in the formation of organization structure. These factors are necessary but not sufficient condition for restructuring organizations. The process of structuring organizations is a political process through which those who have the power to direct firms play significant roles. In any case the factors do not choose but people do. This paper recommends that the designers of organization structures must pay attention to the political process that ultimately influences the organizational forms. The need for alignment with the respective contingency factors cannot be taken for granted. The bargaining powers of those who have the power to direct the organizations ought to be channelled towards the most optimal structural forms.*

*Keywords: organizational structure; structural contingency; decision maker*

## I. INTRODUCTION

The phenomenal change that has taken place globally in the recent years has led to experimentation in various organizational structures. But the experience has not always been a plausible one. Many organizations have structured and restructured, all in the pursuit of superior performance. Organizations are increasingly being described as operating in very uncertain times. The challenges experienced have led some thinkers to question the very rationale for structure and wonder whether a paradigm shift in the organizational design is imminent. The traditional business logic that is based on high level of structure and control is no longer relevant to the dynamics of the new business environment that demands a relatively lack of structure and smart controls. Operating in a

competitive environment, managers need to know how one structure is better than another in advance of validation by experience.

## A. THE BACKGROUND OF THE STUDY

The study of organization structure has been both intensive and extensive. The overriding objective has been always to identify ideal organization structure for the given era. The features of organization structures and their forms have been espoused by the organization design theories. Such features have generated a lot of interest from both the classical organization development theorists and contingency school proponents. The classical theorists aimed at identifying ideal structural forms for all organizations. The contingency school

proponents on the other hand advocates for situational consideration (Cole, 2004) in the formation of organization structures. The classical theorists seem to have lost the debate with the entry of environmental consideration in management from the early 1960s (Donaldson, 2001). The mission of classical management theory was to find the best organizational structure. In contrast, structural contingency theory posits that there is no one best structure that would fit any organization under any circumstances and focus instead on specifying which structure would be more appropriate for a particular set of conditions. But while that may be the case, there is evidence (Child et al., 2003) to suggest that the process of designing organization structures is a political one. Those who have the power to influence organizations play an important role. The strategic choice approach attempts to explain how this happens. The objective of this paper is to examine the extant empirical literature in order to identify the salient factors that influence organization structures.

## B. THE ORGANIZATION STRUCTURE DEFINED

The concept of an organization structure is a diagrammatic illustration of positions and levels of authority within the organization. This is typically presented on a chart also known as the organogram. It is this concept that is articulated by organization design theory, which seeks to define features and types of organization structures. The concept is variously defined by different authors each emphasising its different nuances. Mintzberg (1979) defines it as the sum total of the ways in which the organisation divides its labour into distinct tasks and then achieves coordination between them. Some have defined it as the way in which an organisation's activities are divided, grouped and coordinated into relationships between managers and employees, managers and managers and employees and employees (Sablinski, 2012). Others see it as the arrangement of positions and groups of positions within the organisation (Underdown, 2012). Yet others perceive it as the framework in which the organisation defines how tasks are divided, resources are displayed and departments are coordinated (Daft & Marcic, 2004). Contributing to the same concept, Mullins (2007) states that organisation structure defines tasks and responsibilities, work role and relationships and channel of communication (Mullins, 2007). It is argued that organization structure performs a significant role in the attainment of set organizational goals (Robbin & DeCenzo, 2005). As diverse as the definitions may appear, there is a convergence point. All definitions point to the fact that, organisation structure entails the grouping of activities and the people that perform them into units invariably called departments. In the process of structuring, tasks, responsibilities, roles, relationships and channels of communication are defined.

## C. ORGANIZATION STRUCTURE DESIGNS

Many writers distinguish two broad categories of organization structure designs, traditional and contemporary (Greenber, 2011; Mullins, 2007; Robbin & DeCenzo, 2005). The traditional designs exhibit clear hierarchies, reporting relationships and adhere to the chain of command in

operation. These traditional designs comprises of simple structure, functional structure, and divisional structure. The simple organization structure is characterized by low departmentalization, wide spans of control, centralized authority, and little formalization. Employees often work in all parts of the firm and would not normally specialize which is why there is hardly any departmentalization. It is typical of small, start-up firms. The functional organization structure is based on the grouping of all similar or related occupational specialties together like marketing, production, finance and personnel or human resource. In such a structure employees in the organization are grouped and resources are allocated along these functions. The divisional structure is made up of separate and semi-autonomous units usually based on products, market or geography. Under each division fall various functions.

The contemporary organization structures tend to exhibit less rigid hierarchy or chain of command allowing more ability for adaptability and innovation. Such contemporary designs include team structure, matrix structure, project structure, boundaryless organization, and the learning organization (Stoner et al 2004; Cole 2004). The team structure is made up of teams, and each team works towards a common goal. The team structure does not entertain hierarchy or chain of command. The emergence of team structure has been driven by the desire for innovation for which they are empowered to deliver. The matrix structure is based on a combination of functional and project based structures. Often in such a structure employees have multiple reporting relationships amongst the departmental and project managers. The project organization structure is very similar to the matrix structure except that employees continuously work on projects. When the project ends the employees do not go back to their departments (Mahmoud et al., 2015). They continuously work on projects in a team like structure. Once the project is finished the team moves on to the next project. The boundaryless organization is one with an unstructured design. It is not limited to, the horizontal, vertical, or external boundaries imposed by a predefined structure. It is a flexible structure since there are no boundaries to deal with such as chain of command, departmentalization, and organizational hierarchy. Instead of creating departments, firms use the team approach. Boundaries are actively eliminated by the use of virtual, modular, or network organizational structures. In some cases there may be a small number of permanent employees but typically specialists are hired when a situation arises through subcontracting or use of freelancers. A modular organization is more common in emerging manufacturing business. For this type of organization work is done outside, through subcontracts to different suppliers where each supplier produces a specific piece of the final product. When all the pieces are produced, the organization then assembles the final product. The network organization on the other hand manifests itself in various ways where: (i) a large firm has separate units acting as either business units or profit centres, (ii) a central firm outsources some work to others, and (iii) a network integrator outsources heavily to other firms (Clemmer 2013). The learning organization is defined as an organization that has developed the capacity to continuously learn, adapt, and change. This presupposes that the firms have very

knowledgeable employees who are able to share their knowledge with others and be able to apply it in a work environment. A learning organization is said to be more innovative, creating leverage over competitors.

#### D. THE DIMENSIONS OF ORGANIZATION STRUCTURE

The literature on organization design reveals the presence of various dimensions or components that have to be conceived (Robbins, 2004; Cole, 2004; Underdown, 2012; Sablynski, 2012). According to Robins (2004) these dimensions can collapse into three main ones namely the degree of; complexity, formalization and centralization. These dimensions need to blend for the organization to work as effectively as possible. A combination of these dimensions would produce a web of relationships that make up organization structural forms with features that range from a continuum of mechanistic to organic structures (Lunenburg, 2012; Cole, 2004). A mechanistic structure is highly formal, relies on authority and a well-defined hierarchy to facilitate coordination. Its essence is to maximise efficiency and production. The organic structure on the other end is low on complexity and formalization and enhances participation in decision-making (Ugbomhe et al., 2011).

Complexity refers to the level and extent of differentiation in terms of departments and the chain of command, work specialization, product and market range (Ugbomhe et al., 2011). Where there is little specialization of tasks a simple structure suffices. There are three aspects of differentiation, namely vertical, horizontal and spatial. Vertical differentiation refers to layers of management from top to bottom levels of organization. Horizontal differentiation refers to the extent of separation between units based on various functions, which are also dependent on the nature of tasks performed, skill and training of personnel. The larger the number of personnel required with diverse specialized competencies, the more complex the organization. Spatial differentiation refers to geographic spread. It is the extent to which the organization's premises and personnel are geographically dispersed. Organization complexity is ultimately driven by the degree of product or service differentiation (Robbin & DeCenzo, 2005). A wider product differentiation requires separate sets of activities with commensurate specialized personnel that lead to horizontal differentiation. The increase in the horizontal units often requires corresponding layers of managerial authority, which affects the degree of vertical differentiation. Similarly, a wide product differentiation may trigger the establishment of organization premises or plants in different locations thereby causing special differentiation (Ugbomhe et al., 2011).

Formalization refers to the extent to which jobs are standardized and employees exercise discretion on how to perform their jobs and conduct themselves. It is the degree of how rules, policies and procedures regulate the people's behaviour in the organization. An organization is said to be highly formal when staff exercise limited amount of discretion over what is to be done, how it is to be done and when (Ivancevich, et al., 2005).

Centralization refers to the degree to which authority and decision-making is concentrated at the top (Stoner, et al., 2004; Ugbomhe, et al., 2011). It is how authority to make decisions is dispersed within the organization. Where such authority is less shared but heavily concentrated either in an individual or a unit at the top, the organization is said to be highly centralized. Conversely, where such authority is well dispersed such that more decisions are made at the lower levels where action takes place, the organization is said to be decentralized. In a decentralized organization, employees down the hierarchy exercise significant discretion in the performance of their jobs. In a centralized organization, hierarchy is more important. Top managers play a significant role in coordination and control. Employees down the hierarchy need to obtain approval before they act (Joseph et al., 2013; Ugbomhe, et al., 2011).

#### MECHANISTIC VERSUS ORGANIC STRUCTURES

The features of an organization structure namely; the extent of complexity, formalization and centralization combine to make up different organization structural forms. The forms range from a continuum of mechanistic on one end to organic structures on the other that exhibit distinctive features (Cole, 2004). The features revolve mainly around how coordination and control is achieved in the organization.

A mechanistic structure is highly formal, centralized and vertically differentiated. It relies on authority and a well-defined hierarchy to facilitate coordination and control through rules and procedures. It tends to be very rigid structure in which coordination of tasks is done through standardization of work. Its essence is to maximize efficiency in its operations, which is why authority is centralized, discretion limited and control emphasized. It is a typical structure for organizations with significant routine tasks that are largely predictable (Lunenburg, 2012).

The organic structure on the other end is low on complexity and formalization and enhances participation in decision-making. Coordination is achieved through mutual collaboration and adjustments across functions and individual tasks. The staff tends to enjoy some amount of discretion about how to perform their duties. Its essence is to maximise satisfaction, flexibility, speed of operations, initiative and innovation, (Lunenburg, 2012; Ugbomhe et al., 2011).

#### E. THE SIGNIFICANCE OF ORGANIZATION STRUCTURE

The structure of an organization has a variety of implications on the behaviour of the entire staff of the organization. Its influence contributes to explaining and predicting behaviour in the organization with consequences on the performance (Greenberg, 2011). Therefore, the way an organization is structured is significant to the organization. If an organization is structured appropriately it can achieve much and attain a competitive advantage over its competitors in the industry. Through structure, managers decide how the organization's goals are to be accomplished. Therefore, the role of structure is to regulate, or at least reduce uncertainty in the behaviour of individual employees (Ivancevich et al.,

2005).

A number of writers posit that the organization structure should be designed in such a way that it aids the achievement of the company's business goals and objectives (Ivancevich et al., 2005). It is an important foundation of the company's culture, which is why it affects employees' behaviour, performance, motivation and cooperation. Similarly, other writers (Joseph et al., 2013; Greenberg, 2011) aver that effective organization structures are adaptive to process requirements and possible changes while always trying to optimize the results of the inputs of manpower and resources. It contributes to or impedes the competitive advantage of a firm. In modern times organization structure ought to allow for flexibility due to growth, encourage employee creativity and efficiently utilize the skills and abilities of the work force. Many writers assert that this is the reason why organization structures ought to be live systems, amenable to change.

## II. EMPIRICAL STUDIES

Many contingency factors have been mentioned by authors of various studies but size, strategy, technology and environment keep emerging as of primary importance in influencing the structure and functioning of organizations (Robbins, 2004; Cole, 2004; Donaldson, 2001). The extent to which the structure is aligned to these factors would indicate the degree of appropriateness of the organization structure for a given firm (Greenberg, 2011).

### A. SIZE AND ORGANIZATION STRUCTURE

Size is one of the most important factors affecting the structure and processes of an organization (Child et al., 2003). According to Englehardt (2002), over 80% of studies using organization size as a variable define it in terms of the total number of employees. The underlying assumption in these studies is that the increase in the number of people in the organization increases the need for control and coordination. This puts pressure on the existing structure, which triggers the desire to change it in order to achieve organizational efficiency. The argument, which has received some empirical support, is that when an organization hires more employees at the lower levels it attempts to gain benefits of specialization by first grouping them in functions and subsequently grouping like functions together into divisions (Achcaoucaou et al., 2009; Ugbohmeh, 2011). This process results not only in horizontal differentiation but also disrupts the span of control of existing managers. Consequently, the number of managers will need to increase in order to achieve optimal span of control. This arises out of the belief that it is management who perform control and coordination functions. The increase in management invariably increases vertical differentiation to coordinate horizontally differentiated units or departments. With time and growth in operations such expansions in size is likely to result in spatial differentiation. Over time such growth in the number of employees will lead to increased complexity thereby reducing the management ability to directly control activities within the organization through supervision. To solve this problem, management effect formal

rules and regulations (Ugbohmeh et al., 2011). These define how decisions are made and control exercised thereby determining the degree of centralization and formalization that exist in an organization.

Thus the consensus in the literature has been that the effect of size on structure is more related to control and coordination functions of organizations, which are dependent on the numbers employed. But evidence is beginning to emerge that may question the established relationship between size and structure. For instance, Chindia and Pkhariyal, (2015) established that the practice of outsourcing is having impact on the ways firms restructure in the forms that have not been studied before. Although it falls short of relating this phenomenon to size it certainly shows that it could be possible that firm structures may not correlate with size as defined. In the light of the contemporary achievements in technology and growth in utilization of skilled and knowledgeable labour force, can the control and coordination functions be achieved differently irrespective of the size of the staff in employment? Indeed technological change in the last two decades has led to the production of not just new products but new ways of producing them. Some firms seem to contract in size but grow in diversity of their products in diverse markets. In addition, higher capital inputs and human organization itself has overtime vastly increased the output of the average worker. This has witnessed the renaming of the labour function from personnel management to human resource management, to human capital. These observations seem to suggest that the modern manufacturing enterprise may be a very new phenomenon when looked at against the new ways of production.

### B. TECHNOLOGY AND ORGANIZATION STRUCTURE

Although technology has been defined as the action an individual takes upon an object in order to bring about change in that object, the concept has remained a sticky point to researchers given its frequent evolution (Clay & Miller, 2002). The interest in technology as a determinant of structure was triggered by Woodward (1963). Her studies found that in general different technologies (methods of production) work well with different forms of structure. Her studies focused on what she described as operations technology. She referred to it as the action of equipping and sequencing of activities in a workflow. Advancing her studies Perrow, (1967) proposed four technological types that relate to organization structure namely; craft, routine, engineering and non-routine. He observed that routine and non-routine technologies are two extreme types which, influence control and coordination functions in organizations. Routine technologies serve better more centralized organization structures while non-routine technologies are required by more flexible, decentralized organization structures. The point of interest is that technology in use demands certain structural dimensions and that availability of a technology makes possible the use of certain structural dimensions. Several studies support this notion (Forte et al., 2000; Pettigrew et al., 2000; Meilich, 2006).

Given the rapid evolution in technology, there is no consensus in research studies as what aspect of organization structure is influenced by it. In general, the literature argues

that progressions in computers and telecommunication technology tend to improve the efficiency of business. Organization structures accordingly adapt to these changes by restructuring departments, modifying position requirements or adding or removing jobs (Wang & Ahmed, 2003). Some studies attest to the fact that hierarchies have been reduced and tall structures flattened by the use of technology, especially the ICT. In some cases, implementing new forms of technology may render certain jobs obsolete in some industries, which have a direct impact on the organization structure (Orlikowski, 2007, 2010). Technological infrastructure has not only encouraged the restructuring of organizations but also facilitated the experimentations in boundaryless organization structure. This is because the functions of coordination and control are easily achieved through the use of technology. Some studies have found evidence that the use of computers and extensive use of intranet enhances horizontal communication, coordination, teamwork, and flexible manufacturing. It provides information support for time management and quality control (Yoo et al., 2012; Roland et al., 2015). Several studies have found that the technology in use affected employee empowerment and distribution of decision-making. Professional roles shifted from well defined clear-cut to more spontaneous fluidy actions where pyramid structures were significantly flattened (Vaast & Walsham, 2005; Orlikowski, 2007; Kenneth, et al., 2011). In their study of the effects of restructuring on organization performance of Mobile Phone Service Providers in Kenya, Riany et al., (2012) found technological changes as one of the key factors that influenced decision on the restructuring process and form.

The literature reports positive relationship to structure. That technology impacts on the control, coordination and formalization aspects of organization structure amongst other areas. But there are questions on the definition of technology. Although in their recent study Riany et al., (2012) found a strong relationship between technological changes and changes in structure they avoided defining the concept as applied to their study which does not advance the cause. Technology in its various forms is evolving in very short lifecycles, which is why, evidently, firms are continuously adapting.

#### C. STRATEGY AND ORGANIZATION STRUCTURE

Strategy is variously defined by different authors but there is unanimity on what the essentials are. Cooper & Schinder (2006) define it simply as the general approach that an organization follows to achieve its goals. Pearce and Robinson (2012) consider strategy as the determination of the long-term goals and objectives of an organization and adoption of courses of action and the allocation of resources necessary for carrying out these goals. An organization structure is part of the organizing function that creates the mechanism that coordinates activities for the achievement of the planned goals and objectives. It is logical that such a mechanism is created after the goals and objectives are known. This definition resonates with the classic work on the relationship between an organization strategy and its structure done by (Chandler, 1962; 2003). His dictum that *structure follows strategy* has

been a subject of numerous research studies, Robbins (2004). But the debate about which between strategy and structure follows the other seems settled by the common understanding that the two are so interdependent that it is no longer useful to discuss which follows the other (Lam, 2010).

Several studies have found co-alignment between strategy, structure and environment as a necessary condition for firm performance (Chathoth, 2002; Chiyoge 2009; Krishna and Shubhabrata, 2015). A study on effects of organization structure on strategy implementation of manufacturing firms in Nakuru Kenya found strong correlation of division of tasks and formalization on strategy implementation (Karani, 2013). Strategy-structure match is an important relationship. When a company diversifies, there is a decline in the performance if a suitable structure is not adopted. The decline in performance forces the management to adopt an appropriate structure suitable to its strategy. Performance is enhanced when a match is finally restored between strategy and structure.

The underlying issue here is that strategy plays a major role in determining organizational form or structure, and that this interaction has greatly influenced configuration literature. Even greater is the realization that although strategy is the driving force, it is the interaction of strategy and structure-the fit or configuration-that often truly makes the difference (Burton & Obel., 2004). Karani (2013) found that divisions of tasks and level of formalization, which, are some of the dimensions of organization structure significantly, affected how strategy is implemented.

Strategy and structure relationships have been extensively researched and written about leading to conclusions that have tended to be prescriptive for organizational success. For example, invariably, each time organizations change their strategies, corresponding organization structures are either conceived or re-examined. But the value of strategy has been questioned, especially long-term strategic plans in conditions of uncertainty. It is argued that in the new world of business it may not be sufficient or desirable to find shared strategy by managers. The pervasive use of the internet and virtual media are often mentioned to illustrate how strategy is devised and implemented in real time (Malhotra, 2000). In the context of these changes, does the relationship between strategy and structure identified still persist?

#### D. ENVIRONMENT AND ORGANIZATION STRUCTURE

The positive effect of external environment on organization structures has been established by many studies over many years and across the continents. The trajectory of influence has often been through strategy in the sense that environment influences the type of strategy conceived which then triggers changes in organization structure (Chathoh 2002; Chiyoge, 2009; Hajipour et al., 2011; Adeoye & Elegunde, 2012). Chathoh (2002) established that co-alignment is needed between environment, strategy and structure to improve organizational performance. Chiyoge (2009) established that indeed the firm's core competencies moderate the effect of the co-alignment factors (environment, strategy and structure) on the firm's performance. While studying the relationship between industry structure, strategy type and organizational

characteristics Hajipour et al., (2011) established that changes in the industry's operating environment had influence on characteristics of organization structure.

Environmental uncertainty is determined by both environmental complexity; the extent and variety of environmental components and environmental variability; the frequency and predictability of changes in environmental components (Hallgren & Olhager, 2009; Campbell, 2010; Carver & Kipley, 2010). There are largely four levels of environmental uncertainty namely; placid randomized environment, placid clustered environment, disturbed environment and turbulent environment. Placid randomized environment is described to be relatively unchanging hence places the least threat to organizations. Placid clustered environment is described as the environment, which changes slowly, but threats to organizations are clustered within industries rather than random. Disturbed environment is said to have many competitors seeking similar ends. In this type of environment firms constantly react by either imitating or counter reacting actions of competition in an on-going way. Turbulent environment is the most dynamic and uncertain of all types of environment. Change is constant and discontinuous. These four descriptions of environmental uncertainty are very common in the literature on environmental turbulence (Zhiang, 2006; Carver & Kipley, 2010).

Placid environment has been found to nurture large bureaucratic and hence mechanistic firms. Decision-making can be channelled through hierarchy without loss of opportunity. Standardization and efficiency are maintained through policy and procedures without strain from the demands of external factors. Firms face many challenges in turbulent environment. From an information perspective, organizations need to process more information for decision-making. Opportunities are fleeting thus requiring faster responses and innovation (Englehardt 2002). Organic structures are said to be better suited to such volatile and uncertain environments (Tiko, 2014; Englehardt 2002).

Whilst there is consensus in the research studies that a positive relationship exists between environment and organization structure and even that it is the levels of environmental uncertainty that affects the forms of organization structure, not so are the elements that impact environmental uncertainty. In the early studies the characteristic elements of the external environment was limited to political, economic, socio-cultural, ecological and legal. Other elements have emerged over the years, which have been subject of studies. Amongst these factors include; global competition, liberalization of the economy, new ways of thinking and intensity of competition (Birkinshaw 2002; Vroom 2006).

The effect of greater globalized competition on organisation structure has been found to lead to organic organizational forms, which are needed to allow for greater flexibility and coordination (Vroom, 2006). The effects of liberalization of the economy led to network organization structure which, until then had been unknown. They were perceived to be the most appropriate forms to respond to a context of technology transfer and technological change, deregulation, changing workforce demographics,

manufacturing advances, faster, lower cost communication, computer technologies and greater social and political freedom. Birkinshaw (2002) considered the validity of knowledge as a contingent variable. The study concluded that depending on the intensity of other external factors new ways of thinking (knowledge) affects how a firm is managed and the division of activities therein. Intensifying competition has been found to be amongst the key factors considered in choosing organizational structures that enhance competitive behaviour of firms (Vroom, 2006).

The literature finds unanimity about its influence on structure both in theory and empirical. Two key points can be deduced. First, that placid environment on one extreme will favour relatively more mechanistic organization structure whilst turbulent environment favours relatively more organic structures. This relationship fails to explain the existence of bureaucratic, relatively mechanistic organization structures in modern day firms found in industries in contexts described as turbulent. Second, there exist many elements, some still emerging of the external environment, which affects its level of uncertainty. To pick but two, consequences of globalization and new knowledge are still unravelling especially in emerging economies.

### III. DISCUSSION AND SYNTHESIS

Although the empirical studies which are based on the structural contingency framework confirm factors that influence organization structures, they do not establish the process that leads to the choice of the actual organization structures. For that we turn to those studies that are based on the strategic choice approach.

Several studies have shown that indeed when it comes to responding to different environmental factors, organization structure is influenced by the internal decision makers' view of the design variables namely, centralization, standardization and differentiation (Hollenbeck, 2002; Jabnoun, 2005; Auh & Mengue, 2007). Guided by the strategic choice approach, decision makers have been described in general as those in the organization that have power to direct it. They range from the number of individuals that form a dominant coalition to individual managers or executive owners bestowed with power to decide and control (Child, 1997; Child et al, 2001).

The literature reveals that decision-maker's preference is most evident on the aspect of centralization of organization structure. There is also an argument that centralization is one of the most widely studied aspects of organization structure (Hollenbeck, 2000). Decision-makers choice tends to be significant because this is the aspect of a vertical structure that affect the extent to which decision making authority and responsibility for coordination resides at the top of the organization as opposed to being distributed throughout the lower levels.

Similarly, it is argued that the decision-maker tends to choose organization structures that support their view of operational efficiency or interests (Jabnoun, 2005). The study by Jabnoun (2005) identified that Decision-maker who sort organization structures that supported the implementation of customer oriented total quality management, preferred

structural dimensions of process network and organic structures. Conversely, decision-makers who tended to be relatively more risk averse preferred mechanistic structures. This finding resonates with what other studies found (Hongyan et al., 2015; Delios et al., 2008; Douma et al., 2006).

Studies in emerging markets such as China have shown that ownership types matters when it comes to the choice of the form of organization structure (Sing, 2009; Delios & Zu, 2008). Responding to the same external forces of economic liberalization, market transition through globalization and privatization, notable differences were identified in organization structures amongst state, domestic non-state and foreign ownership types (Douma et al., 2008; Delios et al., 2006).

Some authors have found evidence that suggest that some owners put premium to their control function above higher profits. Faced with the decision to choose optimal organization structures that would distribute control away from them, they preferred to sacrifice firm's performance to maximize their own control. It is partially the explanation for the existence of more private firms than public ones in any economy. This phenomenon has been observed to be more pronounced in emerging markets where ownership tends to be concentrated and large investors are fewer (Zhixiang & Kim, 2013; Delios et al., 2008).

Other studies, though not purely focused on organization structure confirm that ownership type influence overall strategic decisions and hence organizational performance. For incidence, it is conventionally believed that private owned firms are more efficient than state owned firms, while mixed owned firms fall in the between (Shaomi & Jun, 2008; Douma et al., 2006). It has also been established by some authors that sometimes mixed owned firms perform better than a unitary owned firm where market imperfection is significant (Zhixiang & Kim, 2013; Sing, 2009).

Whilst the structure-contingency models present strong arguments with some evidence, strategic choice approach questions its ability or lack thereof to explain the processes by which these conditions are translated into structure. The questions emanate from the assumption that the linkage between context and structure is logical and direct. It also assumes that management is helpless over these factors which they take as given. Viewed this way structural contingency theory takes a deterministic perspective in which case decision makers can be treated as homogeneous across organizations. The implication being that faced with the same contingency factors, decision makers in different organizations will conceive similar organization structures. Proponents of strategic choice have demonstrated that in fact decision makers are not homogeneous which is partly why research outcomes based on structure-contingency models sometimes show inconsistencies.

Besides, the deterministic presumption of structure-contingency framework has been criticized for failing to account for the existence of ineffective organizations. The explanation often given for ineffectiveness is that the structure is inappropriate for its context. They fail to explain the process by which ineffective organizations become effective, or vice versa. The desired alignment between context and structure is

seen as the result of some rational thinking whereas organizations with inappropriate alignments are treated as non rational (Child et al., 2003). Since both effective and ineffective organizations, with both similar and different structures, have been found to exist in the same context it can be argued that other factors than those of context are involved. Therefore, the linkage between context and structure may not be as direct as it has been presumed to be by some proponents of the theory.

Strategic choice approach's criticism of structural contingency theory underscores the role of the decision maker. These leaders have preferences and perspectives that influence their decisions. Additionally, a very important argument is made that organization design is a political process. These two points taken together explain the existence of structural variability in spite of contingency factors. Decision makers are not spectators who simply observe the contingency factors and relay their effects on organizations. They mediate. Decision makers may vary in their responses to contingency factors according to their perceptions, interest or power. Similarly, owners may hold particular, hardly changing perspectives such as the need for power of control irrespective of the obtaining contingency factors.

#### IV. CONCLUSION

It is evident that contingency framework has generated many studies of the different factors that contribute to the organizational structure. A lot of these studies have mostly focused on describing their influence individually (size, technology, strategy and environment) and in isolation. Based on the findings from this study, the following conclusions were arrived at;

- ✓ Firms need effective and efficient organizational structures yet what is known on determinants of structure may not be up to date at least in some contexts. Indeed size, technology, strategy and environment do influence but the extent of which influence may be tenuous.
- ✓ The structural contingency factors are not deterministic in the formation of organization structure. They are necessary but not sufficient condition for restructuring organizations. When restructuring organizations it should be borne in mind that it is a political process in which those who have the power to direct firms play a significant role. A point is made that factors do not choose but people do.
- ✓ A lot of the studies based on the structure contingency framework are bivariate testing the relationships between size, strategy, technology, environment and structure. Studies that consider many factors and their combined effect on organization structures are less common. Hence the verdict of the combined or the relative effect of each of the contingency factor on the organization structure in at least some contexts is yet to be known.
- ✓ The very nature of structural contingency theory and framework proposes that organization design knowledge obtained at any point in time is at best temporal. This implies that in choosing a structure of a firm, management must pay attention to contextual changes. Additionally,

frequent replicative studies based on the contingency framework are inevitable for reality keeps on shifting and so do contingency factors.

## V. RECOMMENDATION

Based on the findings, this paper recommends that the significance of an organization structure is such that;

- ✓ The designers of an organization structure must pay due attention to the political process that ultimately influence the organizational forms. The need for alignment with the respective contingency factors cannot be taken for granted. The bargaining powers of those who have the power to direct the organization ought to be channelled towards the most optimal structural forms.
- ✓ When the organization structure is under review, management must always seek to validate the obtaining assumptions on which the structure was based.

Top management must evaluate the weight of each one of the contingency factors before making a choice of the structural form in each case since knowledge on comparable factor effect is still outstanding.

## REFERENCES

- [1] Achcaoucaou, F., Bernardo, M. and Castan J. M. (2009). Determinants of Organization Structures: An Empirical Study. *Review of International Comparative Management* Vol. 10, Issue 3.
- [2] Adeoye, A. and Elegunde, A. (2012). Impact of External Business Environment on Organizational Performance in the Food and Beverage Industry in Nigeria. *British Journal of Art and Science*, 6 (2).
- [3] Auh, S., Mengue, B. (2007). Performance implications of the direct and moderating effect of Centralization and formalization on customer orientation: *Industrial marketing management*, 36(8):1022-1034 2.
- [4] Birkinshaw, J., Nobel, R., Ridderstrale, J. (2002). Knowledge as a contingency variable: do the characteristics of knowledge predict organization structure? *Organization science*, 13(3):274-289.
- [5] Burton, R. and Obel, B. (2004). *Strategic Organizational Diagnosis and Design*, Boston, MA: Kluwer Academic Publishers.
- [6] Campbell, R. (2010). *Strategic Planning and Organization Performance a Volatile Economic Environment*. PhD. Thesis Capella University, Minneapolis.
- [7] Carver. M and Kipley D. (2010). Ansoff Strategic Issues Management System: A Validation for use in the Banking Industry during High Turbulent Environment. *Business Renaissance Quarterly*, summer.
- [8] Chandler, A. D. (1962). *Strategy and Structure*. Cambridge, MA: MIT Press.
- [9] Chandler, A. D. (2003). *Strategy and structure. Chapters in the history of the American industrial enterprise*. Frederick, MD: Beard Books
- [10] Chathoth, P. K. (2002). *Co-alignment between Environment Risk, Corporate Strategy, Capital Structure, and Firm Performance: An Empirical Investigation of Restaurant*. PhD. Thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia USA.
- [11] Child, J. (1997). Strategic choice in the analysis of action, structure, organizations and environment: retrospect and prospect. *Organizational studies*, 18(1):43-76
- [12] Child J, Chung L and. Davis H. (2003). Performance of cross-border units in China: a test of natural selection, strategic choice and contingency theories. *Journal of International Business Studies*.
- [13] Chindia, E. W., Pokhariyal G. P. (2015). Organizational Structure and Accuracy of Performance Forecasting in Large Manufacturing Firms in Kenya. *International Journal of Managerial Studies and Research* Vol. 3 Issue8, August, pp 1-6.
- [14] Chiyoge, B. S. (2009). *Moderating effect of core-competence on co-alignment factors (strategy, structure and environment) on performance*. Unpublished PhD. Thesis, University of Nairobi.
- [15] Clay, C. D. and Miller T. R. (2002). Organization design: the continuing influence of information technology, *Management Decision*, Vol. 40 Iss 6 pp. 620 – 627.
- [16] Cole G.A (2004). *Management: Theory and Practice* (6<sup>th</sup> ed), London: Continuum.
- [17] Cooper D.R. and Schindler P.S (2006). *Business Research Methods*. New Delhi. Tata McGraw-Hill Publishing Company Limited.
- [18] Clemmer, J. (2013), *The Leader's Digest: Timeless Principles for Team and Organization Success*, Published by TCG Press.
- [19] Daft, R. L. and Marcic D. (2004). *Understanding Management* (4<sup>th</sup> ed). Australia: Thompson South.
- [20] Delios, A., Zhou, N. and Xu, W. W. (2008). Ownership structure and the diversification and Performance of publicly-listed companies in China. *Business Horizons*, Vol. 51, pp. 473-483.
- [21] Delios, A., Zhi J. W. and Nan Z. (2006). A New Perspective on Ownership Identities in China's Listed Companies. *Management and Organization Review* 2:3 319-343.
- [22] Donaldson, L., (2001). *The Contingency Theory of Organizations*. Sage, Thousand Oaks.
- [23] Douma, S., George, R. and Kabir, R. (2006). Foreign and domestic ownership, business groups, and firm performance: evidence from a large emerging market. *Strategic Management Journal*, Vol. 27 No. 7, pp. 637-757.
- [24] Englehardt, C., & Simmons, P. (2002). Organizational flexibility for a changing world. *Leadership & Organization Development Journal*, 113 -121.
- [25] Forte, M., Hoffman, J., Lamont, B., Brockmann, E. (2000). Organizational form and environment: an analysis of between-form and within-form responses to environmental change. *Strategic management journal*, 21(7):753-773.
- [26] Greenberg, J. (2011). *Behavior in Organizations* (10<sup>th</sup> ed). Upper Saddle River, NJ: Prentice Hall.



- [27] Hajipour, B., Mohammad, T., and Arash, S. (2011). An investigation of the relationships between industry structure, strategy type, organizational characteristics and organizational performance: A case study of the food and chemical industries of Iran. *African Journal of Business Management*, 5(16), 7085-7098.
- [28] Hallgren, M. and Ohliger, J. (2009). Lean and agile manufacturing: external and internal drivers and performance outcomes. *International Journal of Operations & Production Management*, Vol. 29 No. 10, pp. 976-999.
- [29] Hongyan, Y., Jing R. and Ting R. (2015). Ownership and M&A Performance in a Transitional Economy: The Case of the Chinese Real Estate Industry. *Management and Organization Review*, 11, pp 715-737.
- [30] Ivancevich, J. M., Konopaske, R. and Matteson, M.T. (2005). *Organisational Behaviour and Management*. New York: McGraw – Hill.
- [31] Jabnoun, N. (2005). Organization Structure from Customer-Oriented TQM: An Empirical Investigation. *The TQM Magazine*, 17(3):226-236.
- [32] Joseph P. H., Wong T. J. and Tianyu Z. (2013). Institutions and Organizational Structure: The Case of State-Owned Corporate Pyramids. *J Law Econ Organ* (2013) 29.
- [33] Karani, L. M. (2013). *Effects of organization structure on strategy implementation; A case of Manufacturing Firms in Nakuru, Kenya*. Lap Lambert Academic Publishing.
- [34] Kenneth, W. G. Jr., Inman R. A. Laura M. B. (2011). Impact of JIT-selling strategy on organizational structure. *Industrial Management & Data Systems*, Vol. 111 Iss 1 pp. 63 – 83.
- [35] Krishna, C. B. and Shubhabrata B. (2015). Configurations of Resources, Strategy, Structure and Environment in Young High-technology Firms: Evidence from Qualitative Comparative Analysis. *Global Business Review* 16(6) 1012–1024.
- [36] Lam, A. (2010). *Innovative Organizations; Structure, Learning and Adaptation. Innovative Perspectives of the 21st Century*. BBVA. Madrid.
- [37] Lunenburg, F.C. (2012). Organization Structure: Mintzberg's Framework. *International Journal of Scholarly, Academic, Intellectual Diversity* Volume 14, Number 1.
- [38] Meilich, O. (2006). Bivariate models of fit in contingency theory - Critique and a polynomial regression alternative. *Organizational research methods*, 9(2):161-193.
- [39] Mintzberg, H. (1979). *The Structuring of Organization – A Synthesis of Research*. NJ: Prentice – Hall.
- [40] Mahmoud, A. Z., Hesham, S. H., Haytham M. S., Sara S. K.. (2015). Nalyzing Organizational Structure for Contracting Firms' of Classification "A", Egypt. *Journal of Engineering Sciences Assiut University Faculty of Engineering* Vol. 43 No. 3 May PP. 403 – 428
- [41] Mullins, L.J. (2007). *Management in fives: Designing Effective Organizations*. NJ: Prentice – Hall.
- [42] Orlikowski, W.J. (2010). Technology and organization: Contingency all the way down. In Nelson Phillips, Graham Sewell, Dorothy Griffiths (Ed.) *Technology and Organization: Essays in Honour of Joan Woodward* (*Research in the Sociology of Organizations, Volume 29*) Emerald Group Publishing Limited, pp.239 - 246
- [43] Orlikowski, W.J. (2007). Sociomaterial practices: exploring technology at work. *Organization Studies*, Vol. 28 No. 9, pp. 1435-1448.
- [44] Pearce, J. and Robinson R. (2012). *Strategic Management*. McGraw-Hill Education; 13 editions.
- [45] Perrow, C. (1967). A Framework for the Comparative Analysis of Organizations. *American Sociological Review*, 32(2):194-208.
- [46] Pettigrew, A., Massini, S., Numagami, T. (2000). Innovative forms of organising in Europe and Japan. *European management journal*, 18(3): 259-73.
- [47] Riany, C. O., Garash H. M., Odhiambo O. and Chieng O. (2012). Effect of Restructuring on Organization Performance of Mobile Phone Service Providers. *International Review of Social Sciences and Humanities* Vol. 4, No. 1 – pp. 198-204.
- [48] Robbins, S.P. (2004). *Organization Theory: Structure, Design and Application*. Englewood Cliffd, NU: Prentice-Hall Inc.
- [49] Robbins, S.P. and DeCenzo, D.A. (2005). *Fundamentals of Management: Essential Concepts and Applications*. Prentice Hall, Upper Saddle River, NJ.
- [50] Roland, K., Yeo M. and Marquardt J. (2015). Think before you act: organizing structures of action in technology-induced change. *Journal of Organizational Change Management*, Vol. 28 Issue 4 pp. 511 – 528.
- [51] Shaomin, L. and Jun X. (2008). The Roles and Performance of State Firms and Non-State Firms in China's Economic Transition. *World Development* Vol. 36, No. 1, pp. 39–54.
- [52] Singh, S. K. (2009). Structuring organizations across industries in India. *Management Research News*, Vol. 32 Iss 10 pp. 953 – 969.
- [53] Stoner, J. A. F., Freeman, R. E. and Gilbert, Jr. D. R. (2004). *Management*. (6<sup>th</sup> ed). Patpargany Delhi: Pearson Prentice – Hall.
- [54] Tiko, I. L. M. (2014). The impact of organisational structure on enterprise architecture deployment. *Journal of Systems and Information Technology*, Vol. 16 Iss 1 pp. 2 – 19.
- [55] Ugbohmhe, O. U, Dirisu A. B. (2011). Organizational Structure: Dimensions, Determinants and Managerial Implication. *International Journal of Economic Development Research and Investment*, Vol. 2 No. 2.
- [56] Vaast, E. and Walsham, G. (2005). Representations and actions: the transformation of work practices with IT use. *Information and Organization*, Vol. 15 No. 1, pp. 65-89.
- [57] Vroom, G. (2006). Organizational design and the intensity of rivalry. *Management science*, 52(11):1689-1702.
- [58] Wang, C.L and Ahmed P. K. (2003). Structure and structural dimensions for knowledge-based organizations. *Measuring Business Excellence*, Vol. 7 Iss 1 pp. 51 – 62.
- [59] Ward, J. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, 58(301):236-244.
- [60] Yoo, Y., Boland, R. J. Jr., Lyytinen, K. and Majchrzak, A. (2012). Organizing for innovation in the digitized world. *Organization Science*, Vol. 23 No. 5, pp. 1398-1408.

[61]Zhiang, L. (2006). Environmental determination or organizational design: An exploration of organizational decision making under environmental uncertainty. *Simulation Modelling Practice and Theory* Vol. 14, pp. 438–453.

[62]Zhixiang, C. and Kim H. T., (2013). The impact of organization ownership structure on JIT implementation and production operations performance. *International Journal of Operations & Production Management*, Vol. 33 Issue 9 pp. 1202 – 1229

IJIRAS