

Strategy Structure Environment Linkage and corporate performance: A conceptual overview.

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ABSTRACT

Many researchers have over the years tried to make attempts to explain and bring convergence on the understanding of the linkage among the variables and/or constructs of strategy, structure and environment. They have generally concluded that although they are closely linked their relationship remains complex and iterative and is not as easy as theory seem to suggest. This paper tries, in light of this complexity on the linkage among the variables existing to bring to light through using an in-depth review of literature a step by step exploration and synthesis of the causal relationship existent among these constructs. Out of examination of an exponential pool of literature we identify the context of each construct, build a relationship among each pair of variable, explore the impacts of the variables on firm performance and eventually draw suggestions that will be able to direct future research hoping to offer a route towards a complete and simpler understanding of the organizations. Finally, this paper purposes to bring a familiarization to the whole concept of configuration theory in management and strategy research by developing a definition centrality on how the constructs of configuration are causally connected.

Keywords: strategy, structure, environment, configuration, structuration, performance.

1. INTRODUCTION

Design choices about an organization's architecture represent some of the most powerful strategic levers available to the top management of the modern corporation. However, we know surprisingly little about the antecedents and consequences of those choices. It is accepted that optimal design choice is contingent on environmental and internal fit considerations, but the precise connections need revisiting. Most of the theoretical knowledge base in this area is decades old, but this situation has begun to change due to conceptual and methodological innovations in the study of organizations in recent years. Besides this, there is an even greater need to understand how the organization architect adapted will influence or align with the organizations strategy and based on environmental perspective how the three will impact on the corporate performance. Several researchers have identified lack of this understanding as the gap creating the "missing link". Attempts to resolve this missing linkage through empirical research has ended up with contradictory conclusions. Hence, there is need to continue with research endeavours, particularly in developing countries, in an attempt to obtain concrete evidence.

1.1 Background information

For many years both researchers and practitioners have attempted to learn why some organizations achieve higher levels of performance than others. Empirical studies have suggested that the success of an organization seldom depends upon a single factor but rather it largely stems from the ability to reach and maintain a viable balance among a combination of different factors. To address this, several studies have centered upon relationships between different variables within organizational context and process. A small body of research indicates that success depends upon a contingent relationship between environment and strategy. Likewise these studies

indicate that strategist must pay close attention to structure when elaborating the strategic plans; not to take structure into account is to condemn the firm to inefficiency.

A mismatch between strategy and the structure will lead to inefficiency in all cases meaning a less than optimal input/output ratio and therefore affect performance (Chandler, 1962; Child, 1975). To date though there remains very few studies available that have focused upon the broader issue of the joint influence of these factors upon organizational performance. It is for this reason that researchers are thus interested in the relationship between strategy and structure in organization. Interestingly, despite the near universal recognition of Chandler's insight and most widely held view that structure follows strategy, there are studies that have also suggested the alternative as true (Hall and Saias, 1980; Fredrickson, 1986; Russo, 1991). Importantly, they concluded that strategy, structure and environment are closely linked although their relationship remains complex and iterative which makes the debate continue.

A review of literature indicates that most studies have dwelt on measures of performance in relation to individual variables or separately thus failing to demonstrate how these variables may interact to form a strong linkage. Overall, these unresolved issues suggest a lack of specific understanding in diverse literatures of the fundamental linkages between strategy structure, environment and performance, and how they interact with one another. This is the gap that needs to be address by exploring the theoretical conceptual relationship between this constructs while at the same time offering a critical evaluation of major aspects defining meanings of the constructs including the social dynamics through which strategy is shaped and the environmental dynamism. This will also necessitate modification of the existing models which will take into account the linkage paradigm and its effects on corporate performance.

1.2 Strategic management orientation

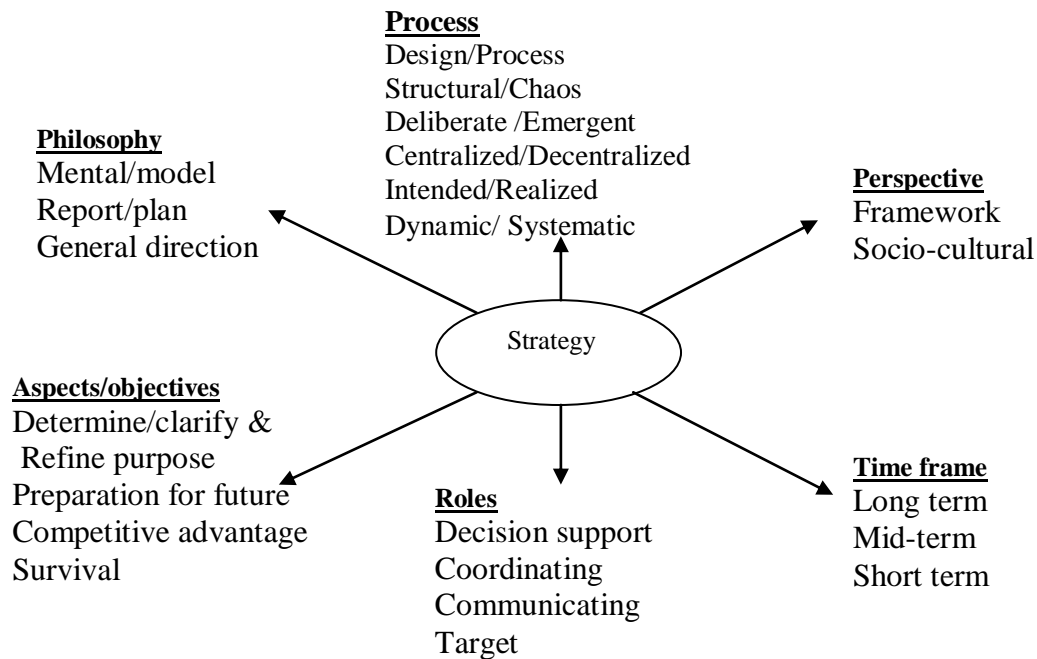
Strategy as a concept is the core concept of strategic management. A clear understanding of the term strategy is thereafter very important before one can try to understand the concept itself. There are four orientations of strategy management in practise according to literature. The first is that of strategy as a framework within which decisions are made and taken. Out of the framework orientation strategy has been viewed as a set of decision making rules for guidance of organizational behaviour, determination of basic long term goals and objectives, adoption of action, and allocation of resources necessary for carrying out these goals, and the planning and coordinating of growth (Ghosal & Westney, 1993 Tregoe & Zimmerman,1980; Robert, 1993; Treacy & Wiersema, 1993).

Another strategic management orientation proposes that purpose of strategy is to provide directional cues to the organization that enable it to achieve its objectives while responding to the opportunities and threats in the environment (Schendel and Hofer 1979; Rumelt et al. 1995). The third orientation is that introduced by Quin (1980) where he identifies strategy as the pattern or plan that integrates organization major goals, policies and action sequences into a cohesive whole. This in line with the works of Andrew (1971) and Thompson and Strickland (1992) and Mintzberg (1994) who also view strategy as managerial action plan for achieving objectives. Lastly based on the assertion that firms if not all organizations are in competition for their survival. Porter (1996, 1998) introduced the concept of competitive strategy where he argued that competitive strategy is about being different. Strategy is basically about competition and the means by which an organization tries to gain competitive advantage.

In business environment several dimensions may be associated with the term strategy. The existence of these dimensions as seen from above definitions is an indication of why so many tools and frameworks exist for strategy. The variety of so many conceptual frameworks and tools in the area of strategy development cannot be regarded as mutually exclusive but must be seen as mutually supportive. It follows that those definitions which take a holistic approach to strategy capture its

meaning better than those which take isolated view. In this respect, the time which they are defined is not a factor (Feurer and Chaharbaghi, 1995).

Figure 1.1 summarizes several dimensions and gives examples.



Source: Adapted from Feurer and Chaharbaghi (1995)

Figure 1.1 Dimensions of Strategy

Camillus (2008) describes strategy as a wicked problem which he says is not the degree of difficulty but rather has innumerable cause, is tough to describe and doesn't have the right answer. He concludes that to effectively deal with wicked issues, executives must explore and monitor the assumptions behind their strategies bringing in the human and social aspects. This aspect is best demonstrated by Lovas and Ghosal (2000) in their paper strategy as a guided evolution. They emphasize incorporation of an important yet realistic role of top management in shaping the direction and outcomes of an evolutionary process within the firm and incorporate human and social capital as critical units of selection within the process.

1.3 Concept of Strategy

The central concept in the field of strategic management is that of strategy and it has continued to elude a common definition and operationalization (Hambrick, 1980). It is generally believed that the concept of strategy has its antecedents in the military discipline. Within its original context, it was simply understood as a military means to a political end. However, the concept did not originate with the Greeks. The concept of strategy in military and political context has remained prominent throughout history and has been discussed by many scholars, numerous militarists and political theorists (McKiernan, 2006).

The first treatise on strategy is found in the Asian history and summed up in Sun Tzu's classic "The Art of War" written about 500 BC (Sun Tzu, 1988). Other early heritage of strategy can be traced from organizational theory to democratic reforms of Kleisthenes (508 BC) in Athens and Musashi's "Book of the Five Rings", written in the early 1600's in Japan.(McKiernan, 1996). It was only through the rise of political institutions such as Government and Churches which used other forms of leverage such as trade and religious dogma that strategy began to widen beyond the realms of the military.

The need for the concept of strategy in business became greater after World War II, as business moved from a relatively stable environment into a rapidly changing and competitive environment. One of the early writers to relate the concept of strategy to business was Von Neumann in 1944. Later in 1947 together with Morgenstern, they developed the "Theory of Games". This had to do with giving rise to hope that general theory of competitive behaviour would emerge bringing conceptual insight into competition and collaboration/bargaining between and within firms.

Over the past 50 years, the concept of strategy has penetrated the business segments and has been accepted as a management tool for achieving strategic targets. The many definitions given on the concept of strategy can all be captured through definition given by Chandler (1962) in which he emphasized the determination of

basic long term goals and objectives, the adoption of courses of action to achieve them, and the allocation of resources as being central to the concept of strategy.

1.4 Organization Structure

The concept of structure is usually understood to imply a configuration of activities that is characteristically enduring and persistent; the dominant feature of organizational structure is its patterned regularity. Yet descriptions of structure have typically focused on very different aspects of such patterned regularity. Some have sought to describe structure as a formal configuration of roles and procedures, the prescribed framework of the organization. Others have described structure as the patterned regularities and processes of interaction (Ranson, Hinings and Greenwood, 1980).

Following from the works of Weber (1946) on bureaucracy, structure can be defined as a formal dimension of framework depicted by precise and impersonal tasks, rules and authority relations. The explicit purpose of such formally circumscribed frameworks remains to achieve more calculable and predictable control of organizational performance (Meyer, 1972; Child, 1972, 1977). This forms the first major school of thought on structure. Out of this school Ghoshal et al. (1994) : Habib and Victor (1991) proposed a simple way of describing organizational structure. Another popular approach is the mechanistic organic continuum of structures. Mechanistic model implies a hierarchical, rigid structure in which power and authority are centralized at the hands of the top management and the designers of work processes. Organic model as structure types enjoy considerable autonomy and have a high degree of discriminability when making certain decisions (Burns and Stalker, 1961; Barney, 2002; David et al., 2002).

There is however the second school of thought. They break with the typical conception of structures as a formal framework counter posed to the interactive patterns of organizational members. Drawing upon Bourdieu (1971, 1977, 1979) and Giddens (1976, 1977, 1979, 1984), they stress the way structures are continually produced and recreated by members so that the structures embody and become

constitutive of their provinces of meaning. Such an analysis must incorporate not only relations of meaning and power but also the mediation of contingent size, technology, and environment. The creativity of members in the face of contextual constraint can only be assessed by setting the analysis in a temporal, historical dimension. Other scholars who reinforce these arguments from their studies include Nightingale and Toulouse (1977) Hall and Saias (1980)

According to Delmas and Toffel (2009) organizational architecture can be divided into explicitly mandated formal structures (incentives, information processing structures and authority relationships) and emergent informal structures (culture, social networks and communities). Later process scholars have acknowledged that administrative procedures are contextualized by social, political and cultural factors (Johnson, 1987; Lovas and Ghosal, 2000).The above arguments ties up with the structuration theory's and the famous "duality of structure". (Giddens 1979, 1984). Jarzabkowski (2008) concludes that top managers may draw upon existing structures in the process of altering them, suggesting a more dynamic structural process which is continuous and can be either sequential or simultaneously applied.

From the works of Rice and Mitchell (1973), there is an increase in need for a hybrid system of defining structure in research. Weick (1976) and March and Oslen (1976) admit that although they may be loosely coupled the position and activities make little structural sense though quite arbitrary. As such organizational structure, therefore describes both the prescribed framework and realized configurations of interactions and the degree to which they are mutually constituted and constituting (Fombrun, 1986).

1.6 Environmental Context

Environmental context represents an outer environment within which or to influence which, the elements of organizational strategy are blended. Organization theorists emphasize that organizations must adapt to their environment if they are to remain viable. As such a greater need to clearly identify both the components and

dimensions of the environment and clearly define them exists. However, one of the shortcomings of much of the theoretical and empirical research on organizational environments has been the failure clearly to conceptualize organizational environment or the elements comprising it (Lawrence and Lorsch, 1967; Thompson, 1967; Terrebery, 1968).

Dill (1962) in one of the earliest attempts to define the environment commented that it is all elements not formally defined as belonging to the organization. Duncan (1972) defined environment as the totality of physical and social factors that are taken directly into consideration in the decision-making behavior of individuals in organizations. This brings into play the behavioural theory of perception of organizational members. A differentiation is made therefore between the internal environment which consist of those relevant physical and social factors within the boundaries of the organization or specific decisions units that are taken directly into considerations in the decision making behavior of individuals in the system. The external environment is the factors outside the boundaries.

Duncan (1972) is credited with the introduction of the empirical construct of environmental perception of uncertainty, degrees of complexity and dynamic environment where behavioural aspects of individuals differ with some having high tolerance for ambiguity and uncertainty than others leading to perception. He identified two dimensions of the environment, namely the simple – complex dimension and the static – dynamic dimension. However, Downey et al. (1975) contradicted Duncan assertions and concluded that uncertainty is an attribute of an individual's behavioural trait and environment rather than an attribute of the physical environment and that physical environment attributes should not be used as criterion for uncertainty measure. The works of both has been developed further by Tan and Litschert (1994) who concluded that organizational environments reflect two prominent perspectives. The first perspective is that of information uncertainty, It indicates that as the environment becomes less munificent or more hostile, firms are subjected to greater uncertainty.

Finally, the environment may also be viewed as a multidimensional construct with conceptual and empirical studies having identified several specific environmental dimensions, which include dynamism, complexity and hostility (Dess and Beard, 1984; Child, 1972; Mintzberg, 1979; Miller and Friesen, 1978). Environmental complexity and dynamism have been closely linked to the information uncertainty perspective (Lawrence and Lorsch, 1967; Thompson, 1967), while hostility has been tied to the resource dependence perspective (Aldrich, 1979). The perspectives offer a better understanding of the impact of each environmental dimension on the formulation of a firm's strategy. (Miles and Snow, 1978; Miller and Friesen, 1982).

1.7 Environmental Analysis

The unresolved issue among researchers on how environment can be analysed has been a source of equivocal empirical results. Some researchers have treated the environment as an objective fact independent of firms (Aldrich, 1979) while others have treated the construct as perceptually determined and enacted (Weick, 1969). The debate is enriched by reviewing some of the outstanding works from empirical and theoretical literature available to try and draw a favourable analysis criterion.

Bourgeois (1980) while studying strategy and environment integration concluded that the issue is not whether analysis should be objective or perceptual but rather he suggests that both are real and relevant from a strategic management standpoint. Objective environments are relevant to primary strategy making (domain selection), while perceived environments are a prime input to secondary strategy making (domain navigation). It has also been argued that perceptual analysis makes sense since only factors that participants perceive can enter into strategy formulation behaviour (Duncan, 1972; Lawrence and Lorsch, 1967).

Fahey and Narayan (1986) say that analysing the environment as a whole is impossible since it is too complex and inter connected. They have proposed that the environment be decomposed into segments. The two conceptions that are widely

used in organization environment are the task environment and the institutional environment. The task environment can be broadly defined as all aspects of the environment potentially relevant to goal setting and goal attainment. Institutional environment includes - societal, demographic, economic, political and international elements (Scott, 1987).

The most remarkable contribution to the analysis of environmental context in strategic management though is in the works of the strategist historicist McKiernan (2006) who has been able to recognize, introduce and explain the influential issues in the environmental debate. He takes recognition of both the positivist approaches in environmental context and the interpretive approaches. Finally, Child (2000), when theorizing about organization cross-nationality, identified both high and low context approached, with the former occupied by economists and embracing economic universalism and technology theory and the later occupied by socialists embracing cultural and institutional theory.

1.8 Firm performance and its measurement

The organizational performance construct is probably the most widely used dependent variable, in fact it is the ultimate dependent variable of interest for any researchers concerned with just about any area of management yet it remains vague and loosely defined (Richard et al, 2009; Rodgers and Wright, 1998). The construct has acquired a central role as the deemed goal of the modern industrial activity. Performance is so common in management research that its structure and definition are rarely explicitly justified; instead, its appropriateness, in no matter what form is unquestionably assumed (March and Sutton, 1997).

However, the definition of organizational performance is surprisingly an open question with few studies using consistent definitions and measures (Adam and Ebert, 1987; Kirby, 2005). Hersey and Blanchard (1998) argued that performance has multiple meanings depending on the discipline and they have given some of the definitions based on management scientists, marketers, accountants and economists. Although firm performance plays a key role in strategic research, there is

considerable debate on appropriateness of various approaches to the concept utilization and measurement of organization performance. The complexity of performance is perhaps the major factor contributing to the debate. Out of literature are three common approaches to organization performance measurement namely the objective measures of performance that tend to be quantitative, the subjective measures that tend to be qualitative therefore judgemental and usually based on perception of respondent, and triangulation. The objective and subjective approaches can also be differentiated in terms of ends and means. Objective measures focus on end results while subjective measures focus on the process or means by which ends results are achieved (Cohen, 1993).

Lastly, there is the call for triangulation from multiple measures of multidimensional performance construct and the application of longitudinal analysis both of which have a marginal effect on management literature (Postma and Zwart, 2001, Richard et al., 2009, Ailawadi et al. 2004). It is critical to note that management research on performance has been locked into three methodological paradigms. That is sociology (survival analysis), psychology (psychometric techniques) and economics (econometrics). This forms the foundation of the new trends of performance measurement that is done on a triple bottom line of economic, social and environmental assessment scale.

2. EMPIRICAL LITERATURE REVIEW

In trying to understand strategy, structure, environment linkage and corporate performance this section takes an in-depth insight into empirical literature with an aim of creating a clear and simpler understanding of configuration – performance linkage. Focus is on empirical literature so as to see how first configuration is jointly produced by organizational (strategy and structure) and environmental attributes that are critical to a firm in any industry, and second to evaluate if configuration out of both organizational and environmental attributes has any impact on corporate performance.

2.1 Strategy Structure Relationship: What shapes what?

Since Chandler's (1962) classic, the relationship between strategy and structure has been subject of both empirical and conceptual studies with aim and intention to show the direct or indirect link from strategy to structure. Chandler (1962) formed the basis of the structure follows strategy paradigm which was later tested and confirmed in Britain (Chanon, 1973), France (Pooley-Dias, 1972) and Germany (Thanheiser, 1972). Rumelt (1974) was then able to show how the match influenced performance. In all these cases strategy was characterized mainly in terms of breadth of markets either as diversified or undiversified. Structure on the other hand was largely according to its divisionalized or departmentalized form and nature of controls.

Firms which are able to achieve a fit between their strategy and structure can create a significant competitive advantage, while firms that do not have a fit are left vulnerable to external changes and internal inefficiencies. As a result, firms with a fit between strategy and structure should perform better than those without such a fit. Organizations face not only an "entrepreneurial" problem (which strategy to adopt), but also an "administrative" problem (the selection of structures that are consistent with the strategy). They argue that, over time, strategy and structure reinforce each other: organizations choose an administrative system that is consistent with their strategy and then find that this system continues to propel them in the same strategic direction (Miles and Snow 1984). This is supported by Chakravarthy (1982) who found out that organizations having different levels of adaptation would utilize different strategies to match their structural arrangements. Using Miles and Snow's (1978) strategy typology, Chakravarthy argued that organizations with a high-level of adaptation would exhibit a prospector strategy and organic structure while organizations with a low-level of adaptation would adopt a defender strategy and a mechanistic structure.

Galan and Sanchez – Bueno (2009) after reviewing 10 years data from 1993 to 2003 with context to Spanish organizations concluded that strategy leads structure and structure leads strategy however the former is stronger than the latter. They also

concluded that, the relationship between diversification strategy and multidimensional structure postulated by Chandler (1962) focusing on administrative efficiency remains applicable to today's market only that it requires broadening based on current circumstances. In architecture form follows function. In business, structure follows strategy (Abbot, 2009). In essence, the company decides what its (hopefully) unique approach to marketplace is and structures an organization that best fits that approach. With ICT age it is not uncommon to find one can follow the maxim of the architect Van der Rohe where "one can do more with less".

2.2 Strategy and Environment Linkage

A consistent characteristic of the strategy paradigm, regardless of perspective is the assumption of a link between a firm's strategic profile and its external context (Venkatraman and Prescott, 1990). The strategic choice perspective asserts that this linkage has significant implications for performance (Miller and Friesen, 1983), yet empirical evidence is inconsistent and limited to results that reflect market driven economies.

It is further posited that the fit between environmental dimensions and strategic orientation will lead to better organizational performance (Venkatraman and Prescott, 1990). Consistent with this perspective, Mintzberg (1973) defines strategy as a patterned stream of decisions, which focus on a set of resource allocations that are employed in an attempt to reach a position consistent with a firm's environment.

The evidence supporting a relationship between the environment-strategy coalignment and performance is compelling (Smith and Grimm, 1987; Miller and Friesen, 1978, 1983, Miles and Snow, 1978; Venkatraman, 1990; Venkatraman and Prescott, 1990). In particular for firms that operate in competitive environments, the strategy literature indicates that there is a need for a distinctive strategic orientation

in order to exploit critical environmental resources and achieve a competitive advantage (Child, 1972; Miller and Friesen, 1983; (Luo and Yu, 1991).

2.3 Structure and Environment Linkage

Over the last decade, environmental issues have become increasingly significant to policy makers in both the political and the business world (Avilla and Bradley, 1993; Ladd, 1994). Globally, governments are increasingly seen to be adopting environmentally aware measures, to regulate the activity of corporations and consumers alike. For the business community, the issue has been how seriously to regard the need for environmentally aware strategies. The environment is increasingly perceived to be affecting bottom line performance, and this presents a fundamental conundrum for the business strategist. A decision is required as to the position a company adopts in relation to the environment. This position may be located anywhere across a continuum ranging from adopting a policy of compliance with existing or future regulations, to attempting to adopt a management strategy (Ghobadian et al., 1995).

Literatures on population ecology of organizations contend that the environment selects out various common organization forms. There are only a rather limited number of possible strategies and structures feasible in any type of environment. In either event the repertoire of viable configurations will tend to happen relatively quickly in short bursts and that once reached, a fairly stable set of configurations will exist over a long period (Karake ,1996). Organizations with too little structure lack enough guidance to generate appropriate behaviors efficiently while organizations with too much structure are too constrained and lack flexibility Okhuysen and Eisenhardt, 2002; Baker and Nelson, 2005; Siggelkow, 2002; Martin and Eisenhardt, 2000; Rindova and Kotha, 2001; Rivkin and Siggelkow, 2003; Rowley, Behrens, and Krackhardt, 2000).

This is found coherent to structure legitimization by Pavis et al. (2009) who elaborate that entrepreneurial organizations that have narrow structures find the

challenge in any environment the same, they need to gain enough strength in the structure before failure ensues. For Lowell and Rumelt (2009), in this uncertainty businesses have to do more of what is working out and less of what is not. It is foolhardy to think that one can see the future and design strategies for response. One reason why results from research regarding the interrelationships between organizational form, response to environmental change, and performance may be mixed is that prior research has had the tendency to focus on changes between organizational forms as opposed to also examining changes within organizational form (Fox-Wolfgramm, Boal, and Hunt, 1998). Given that organizations can respond to emerging environmental conditions by making changes either within their current form or by changing to another form, the current study examines both within-form and between-organizational-form changes (Davis, Eisenhardt and Bingham, 2009).

3. STRATEGY STRUCTURE ENVIRONMENT AND PERFORMANCE LINKAGE

Any research domain that contains the study of firms from a strategic management perspective has firm strategy formulation and implementation decisions pointed out as the key in explaining superior performance. Conceptually, this relationship is purported to be within the paradigm that explains the effect of environment, strategy and structure on firm performance. This leads to either the historically dominant approach which focuses on empirical classification of organizations in order to define inductively a set of configurations appropriate to a given context or the deductively derived configurations which apply broadly and are not dependent on particular industry contexts.

3.1 Configuration Approach

The concept of organizational configuration has been increasingly used in publications on performance of companies. Although promising in this context, the study of organizational configurations encompasses a variety of research streams (Ketchen, 1997; Ferguson, 1999). It remains a very tempting thing to use this

concept because it is a vehicle to describe certain characteristics or dynamics of organizations. As a concept it is gaining high recognition in organizational research but even more specific in strategic management “Configuration approach” or archetypes, gestalts, consistency or fit indicates that a firm’s performance will depend on the degree of adjustment existing between organizational context and organization structure remembering that no single form of organization exists that is ideal for every situation (Donaldson, 2006; Zott and Amit, 2008). Ketchen et al. (1997) argue that certain strategies are usually associated with some specific organization structures in particular environments. This can be due to fact that strategy, structure and environment have some complimentary aspects and what really guides firm success is an appropriate adjustment between this three (Miller et al.,2002; Snow et al.,2005).

Fiss (2008) concluded that the study of organizational configuration which he defines as commonly occurring clusters of attributes of organizational strategies, structure and processes forms a central pillar of both organizational research and strategic management literature. Likewise continuing attention to configuration theories stem from their multidimensional nature, acknowledging the complexity and interdependent nature of organization, where fit and competitive advantage frequently rest not on a single attribute, instead on relationship and complimentary between multiple characteristics (Burton and Obel, 2004; Miller, 1996; Siggelkow,2002). However, Pertusa-Ortega et al. (2009) in their study evaluating strategy, structure, environment and firm performance in Spanish firms noted a contradiction. To them even when both internal and external adjustments are combined, statistical analysis indicated a contradiction to the fact that completely adjusted firms have a better performance.

Although many studies have included one or more of these sets of variable, to date no study has remained true to Miles and Snow’s contention that optimal performance is a complex interaction of these factors. Also no study has taken the Miles and Snow variables and operationalized them in a model that can test whether

the contingencies they posit in theory hold in practice. Studies of private firms investigated whether the effects of strategy are moderated by environment (Davies and Walters, 2004; James and Hatten, 1994; Luo, 1999). Strategy and Organizational structure (Jennings and Seaman, 1994; Miller and Toulouse, 1986). Processes (Slater, Olson and Hult, 2006). Public sector works (Andrews, Boyne and Walker, 2006; Meier, O'Toole, Boyne and Walker, 2007). Grinyer et al. (1980) in their study analyzing the strategy, structure, environment and firm performance in 48 UK companies concluded that strategy – structure linkage is stable and positive and fit between strategy and structure was found to be negatively correlated with perceived environmental hostility but unrelated to financial performance. Meier et al.(2007) while testing this in several hundreds public organization over a period of six years indicated that at least for those organizations the contingency relationship proposed by Miles and Snow do not hold.

Miller and Friesen (1983) summarized their findings by arguing that successful archetypes adopted differing strategies to cope with differing environments. Management must be able to scan and interpret the environment and make decisions appropriate for both internal arrangement and external alignment. Lenz (1980) found that the combination of environment, strategy, and organizational structure in high-performance firms differed significantly from that of low- performance firms. Similarly, Hambrick (1983) found that alternative strategies did not lead to equal success within an industry. Thus the current literature suggests that different strategies may have different performance implications.

Astley (1983) indicated that organizations tend to change their elements in a manner that either extends a given configuration or moves it quickly to a new configuration that is preserved for a long time. Piecemeal changes will often destroy the complementary among many elements of configurations and will thus be avoided. Only when change is absolutely necessary or extremely advantageous will organizations be tempted to move concertedly and rapidly from one configuration to another that is broadly different. Such changes, because they are expensive will not

be undertaken very frequently. Consequently organizations will adhere to their configurations for fairly long periods.

It is important to note that from above arguments, both theoretical and empirical arguments have been deservedly influential, but more comprehensive and systematic tests are still required. Proper testing requires incorporating the interaction and doing so will serve to demonstrate further that the world of organizations and their strategies do not sort itself out quite as neatly as theory seems to suggest. Results may be mixed with hints of contingencies and complications. Sluismans (2005) concludes that it is not only because of the increasing use of the concept of configuration, but mainly because of this apparent usability in getting closer to the truth as to how things in organizations happen that this concept deserves to be explored. However even with all these, common agreement on what configurations are and how they are used practically is still lacking.

3.2 Co-alignment Approach

Co-alignment referred to also as consistency, contingency, 'fit' is emerging as an important organizing concept in organizational research (Aldrich, 1979), including strategic management (Miles and Snow, 1978; Venkatraman and Camillus, 1984; Venkatraman, 1990). This concept's relevance to strategic management research stems from a view that the strategy concept relates to the efficient alignment of organizational resources and capabilities with environmental opportunities and threats (Andrews, 1980; Bourgeois, 1980; Schendel and Hofer, 1979). In general, co-alignment refers to the match between (or among) a set of theoretical dimensions. Its role in the organizational theory literature is important from two different perspectives. First is the descriptive perspective which specifies the existence of relationships among a set of theoretically-related variables without any explicit linkage to performance. Second is the normative perspective which develops an explicit link between co-alignment and performance (Venkatraman, 1990).

Co-alignment, which presupposes the underlying “fit” among environmental and organizational variables, has its roots in the design and environmental schools of strategy and organization theory. The environmental school propounded by Mintzberg (1973), Hannan and Freeman (1977), and Miller, Droge and Toulouse (1988) suggests that the environment is the central actor in the strategy making process. The organization must respond to its environments, or else be selected out. The design school proposes a model of strategy making in which a match or fit is sought between internal capabilities and external possibilities. The two works that were influential in the development of this school include ‘leadership and administration’ by Selzenick (1957) and ‘strategy and structure’ by Chandler (1962).

The development of a scheme powerful enough to compare and contrast all the differing perspectives may be a difficult task. Nevertheless, Venkatraman and Camillus (1984) proposed a conceptual scheme for classifying major schools of thought. Two dimensions underlie the proposed scheme. These include the conceptualization and the domain of fit in strategic management. Regarding the conceptualization of fit, they argued that although strategy has been conceptualized in different ways, one fundamental distinction underlies most conceptualizations on whether the focus should be on the content of strategy or on the process of strategy making. The other dimension addresses the domain of fit. They observed that because strategic management presently serves as a meeting ground for researchers rooted in different disciplinary orientations, the field is marked by great diversity in concepts, terminology and methods of inquiry. Using the classical organization-environment juxtaposition, Venkatraman and Camillus (1984) distinguished three categories of the domain, namely: internal, external, and integrated.

From the foregoing, it is evident that the various propositions on performance implications of environment-strategy relationship rest on the general notion of co-alignment, which is a central anchor for strategic management research (Miles and Snow, 1978; Venkatraman and Camillus, 1984). However, Venkatraman and Prescott (1990) warn that its use in theory construction is limited unless considerable

attention is provided to link the articulation of the theoretical position with appropriate operationalization schemes. Specifically, in researching the effects of environment-strategy co-alignment, Venkatraman and Prescott (1990) pointed out the emergence of two important issues. First are the problems surrounding the conceptualization and operationalization of environments and strategy; and second, is the development of an appropriate analytical scheme for systematically measuring the degree of co-alignment and its impact on performance.

4. CONCEPTUAL MODEL

A conceptual model presented in figure 1.2 captures the relationships between and among the various variables underpinning the linkage of strategy, structure, environment and performance as discussed in the foregoing sections of the literature review. The conceptual framework suggests interrelationships between and among key variables in this study viz: strategy, structure, environment and performance. The intervening/moderating factors which are likely to influence the interpretation process are of behavioural, cultural and institutional theory perspectives which are environment in context.

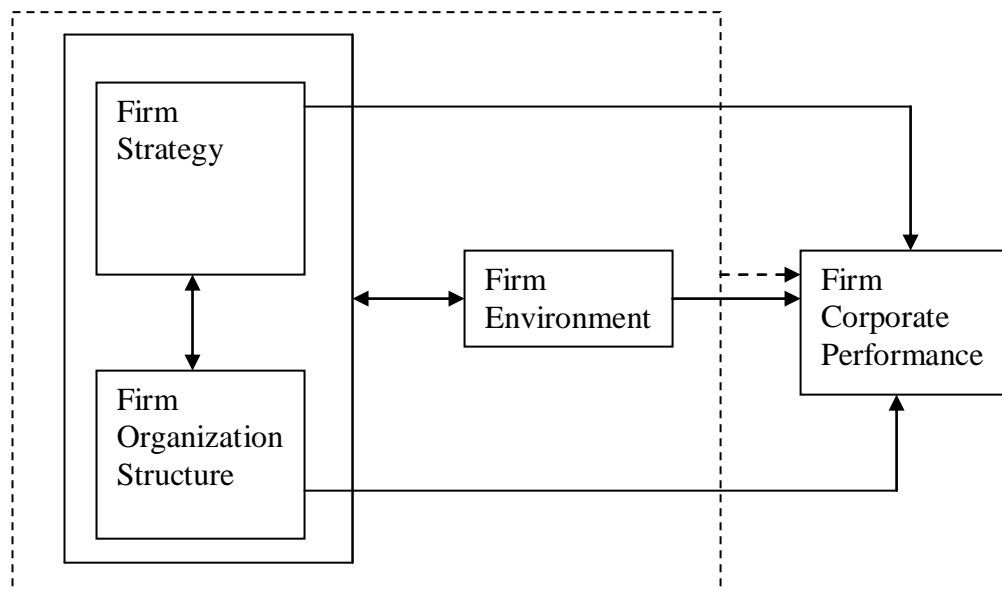


Figure 1.2 Conceptual Model

5. SUMMARY OF EMPIRICAL LITERATURE REVIEW AND KNOWLEDGE GAPS

Table 1: Summary of Empirical Literature and Knowledge Gaps

| Year & Journal | Author and journal title | Variables | Findings | Gaps/Remarks |
|----------------|---|--|--|---|
| 1980 -SMJ | Lenz, R.T. <i>Environment, Strategy Organization structure and performance: patterns in one industry</i> | Strategy: Resource allocation & policies Organization Structure: differentiation, integration. Environment: Complexity, Uncertainty. Performance: (ROA) | Performance stems from relationship among many different factors. Neither environment, strategy, structure acting alone is sufficient to explain difference in performance | Looked at only a single hypothesis . Need to assess side by side firms from different industries. Need to study the strategic choices as determined by population served. |
| 1980 - AMJ | Grinyer, P.H., Yasai-Ardekani, M. & Al-Bazzas, S. <i>Strategy, Structure, the Environment and Financial Performance in 48 United Kingdom Companies</i> | Strategy: Span of Control Structure: Divisionalization Environment: pressure/hostility (Perceived) Performance: ROI (Profits) | Confirmed positive relationship between strategy and structure and independent of other correlates of structure . No match of strategy/structure and performance | Methodology gap was noted as they could not get ROI data on the subsidiaries. Gap: Study concentrated on the match of strategy and structure and the impact on performance while ignoring the linkage. |
| 1987 – AMJ | Miller, D. <i>Strategy making and Structure: Analysis and Implications on performance</i> | Strategy (Making): Rationality, Assertiveness and interaction. Structure: formalization, centralization, Complexity, integration Performance; Profitability, growth in income ROI | Reinforced findings that emphasized configuration or gestalts. Aspects of strategy, structure, environment configure to form integrated whole with crucial impact on performance. | Concentrated on individual match of strategy and structure and its impact on performance. Failed to test if strategy making behaviour moderate that relationship and it environment will influence strategy making behaviour |
| 1991 - SMJ | Habib, M.M. & Victor, B. <i>Strategy, Structure and Performance of US Manufacturing and Service MNCs: A Comparative Analysis</i> | Strategy: product/ service diversity, extent of foreign involvement. Structure: Types (function/product or services) Geographic: international/ regional Performance: economic (ROA), Accounting measures. | Supported the strategy-structure fit. Provide empirical evidence effect of matrix structure. | ROA does not capture the fit of strategy - structure fit. Ignored contextual, environment and market variable like technology, market concentration. |

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|---|--|---|---|---|
| 1994-SMJ | Jennings, D, F. & Seaman, S.L. <i>High and Low Levels of Organizational Adaptation: an Empirical Analysis of Strategy, Structure and Performance</i> | Strategy: prospector, defender Structure: Mechanistic/Organic Performance: Value, profitability and risk | Provide empirical evidence regarding impact of strategy/ structure alignment on performance. Introduced concept of equifinality | Concentrated on adaptation impacts ignoring strategy/structure match becomes optimal. Failed to determine the factors that are driving force behind an organizations adaptation by examining manner in which managers scan their environment. |
| 2007-conference paper at Tucson AZ (USA) | Meier, K.J., O' Toole Jr., J.L., Boyne, G.A, Walker, R.M & Andrews, R. <i>Alignment and Results: Testing the interaction Effects of Strategy, Structure and Environment from Miles and Snow</i> | Strategy: Defenders, Prospectus, Reactors & Analyzers Structure: Organic/ Mechanistic Environment: Turbulence munificence Performance: pass rate of students | Found mixed feedback on how the three strategies impact on environment. Impact on performance governed by how structure and environment are aligned and how strategy is employed thereafter. | Study omitted organizational process in testing alignment and only used the four variables. Study omitted test for centrality of organization goal. Study failed to test for contingencies and complications in the individual interactions. |
| 2008-Conference paper at 24 th EGOS colloquium in Amsterdam. | Fiss, P.C <i>Configuration of Strategy, Structure and Environment: A Fuzzy Set Analysis of High Technology Firms.</i> | Strategy: Cost leadership, Differentiation. Structure: Formalization, Centralization, Administrative Complexity, Size. Environment: Rate of change, uncertainty. Performance: ROA (pre-tax profit) | Demonstrated existence of several equifinal configurations around grouped samples. Found that pure systems of strategy gave high performance as opposed to hybrid types. | Focused on some measures while excluding others like operationalization of environmental characteristics. Study was on high technology sector only. There is need for cross-industry data. |
| 2008-EuroMed Journal of Business | Pertusa – Ortega, E.M., Claver-Cortes, E. & Molina-Azorin, J.F. <i>Strategy, Structure, Environment and Performance in Spanish Firms.</i> | Strategy: Cost leadership, Innovation, Differentiation. Structure: Organic models/ mechanistic Environment: Uncertainty, Dynamism Performance: ROA, ROS, ROE | Traditional theoretical models are not exactly applicable in context of European- Mediterranean SME's. Cost leadership is not associated with a favourable environment. Innovation differentiation strategy is not associated with organic structures. The relationship between adjustment and performance is partially confirmed. | Methodological: Used opinion scale which is limiting due to subjective character. Study ignored hybrid organizational forms and other organizational dimensions such as planning, control systems, processes, information and communication flows, and organization culture. |

| | | | | |
|------------------------|---|---|---|---|
| 2009 - unpublished PhD | Chiyoge B. S. <i>Influence of Core – Competencies on the Relationship between Co-Alignment Variables and Performance of Profit – oriented Parastatals in Kenya</i> | Strategy: Defenders, Prospectors, Analyzers and Reactors Structure: Formalization, Centralization, Specialization, Standardization of procedures/ methods/ employment practices Environment: Defined along Porters 5 forces model. Performance: ROA (Profitability Ration), Growth in Sales. | Found weak relationship between environment and structure, and environment and strategy. Core-Competencies moderated relationship between Co-alignment variables and firm performance. | Operationalization of performance was limited to ROA. There is need to test other measures of performance. Study concentrated on Government parastatals which tend to have highly regulated environments, structures and controlled strategies. There is need to test the relationship in more flexible organizations. |
|------------------------|---|---|---|---|

The studies reviewed above presented mixed findings regarding the relationship between variables of strategy, structure, environment and firm performance. While a number of them found a positive relationship between the variables and performance, others found the opposite. One possible explanation for this situation could be the variety of methodologies and definitions of variables. Another explanation could be the study contextual factors that were not captured by the models employed. Most of these studies were carried out in different countries and different managerial regimes.

The studies reviewed also seem to examine the direct relationship between the individual variables or specific set of the variables and performance. As such they have overlooked testing the variable interactions, their relations and causal linkage of all of them and consequently the joint impacts on firm performance. As such critical organizational context and implementation issues are ignored. Lastly the studies reviewed have reflected weaknesses in variable definitions and operationalization. Besides limited statistical analysis and ignoring of human elemental factors.

6. CONCLUSION

The theoretical framework for strategy, structure and environment that has been tested in the past is today under serious scrutiny. Managers are leading more through uncertainty than ever before. Even governments have been drawn back to pay special attention and even bail out businesses. The magnitude of this era will be realized when the fog has faded and new nexus for strategy structure alignment is being sought. The resultant demand is to build flexibility into the strategy process, with a portfolio of initiatives from which best choices shall be made adaptable to the new environment pattern. Firms which are able to achieve a fit between their strategy and structure can create a significant competitive advantage, while firms that do not have a fit are left vulnerable to external changes and internal inefficiencies. Thus under the global economic crisis, the fit between these constructs is likely to be the key focus scholars and practitioners.

Despite this logical explanation empirical results have been mixed. Some researchers have found support for the configurations–performance relationship others report no connection. This equivocality has created concern about the appropriateness of future inquiry. Indeed, in reference to the most prominent approach to configurations strategic groups it has been suggested that it may be necessary to abandon this concept and redirect attention toward other potential determinants of performance. Before research on configurations and performance is abandoned, plausible alternative explanations for the lack of findings should be examined. The role of statistical power in extant research provides one such alternative. Statistical power is, in essence, the probability that an empirical test will detect a relationship when a relationship, in fact, exists.

Specific longitudinal empirical studies in small and medium enterprises more especially in emerging economies is recommended to assess the strategy-structure-environment configurations that have been experienced in the changing environment over the economic crisis period being experienced and also provide the linkage to context and the measures. This will be expected to be a significant contribution in knowledge in this area as no other study seems to have considered this holistic approach. Specific recommendation is to test the configuration linkages raised above by examining empirically the situation of SMEs in Kenya which is not only a non-western context but also a country where studies on small and medium enterprises have been globally acknowledged (ILO 1971, Parker and Torres, 1995).

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REFERENCES

- Abbott, D.J. (2009): "The Art of Doing More with Less" *Daily Nation, Smart Business Tuesday, September, 22: pp, 15.*
- Adam, E.E. & Ebert, R.J. (1987): *Production and Operations Management Concepts, Models and Behaviour*. Prentice-Hill. International Edition, Englewood Cliff. USA.
- Ailawadi, K. L., Dant, R. P., & Grewal, D. (2004): *The difference between perceptual and objective performance measures: An empirical analysis* (Marketing Science Institute Working Paper No. 04-001). Cambridge, MA: Marketing Science Institute.
- Aldrich, H. E. (1979): *Organizations and Environments*. Prentice Hall, Englewood Cliffs, NJ.
- Andrews, K. (1971): *The Concept of Corporate Strategy*, Richard D.Irwin, Inc.3rd Edition
- Andrews, R., Boyne, G.A., & Walker, R.M. (2006): "Strategy Content and Organizational Performance: An Empirical Analysis" *Public Administration Review* 66 (1): 52-63.
- Ansoff, H. I. (1965): *Corporate Strategy*. McGraw – Hill, New York. N.J.
- Avilla, J.A. & Bradley, W.W. (1993): "What is Environmental Strategy?" *The McKinsey Quarterly No. 4, pp 53-68.*
- Awino, Z.A. (2007): "Effects of Selected Strategy Variables on Corporate Performance: A Survey of Supply Chain Management in Large Private Manufacturing Firms in Kenya", Unpublished PhD Dissertation, University of Nairobi.
- Baker, T., & Nelson, R.E. (2005): "Creating Something from Nothing:Resource Construction Through Entrepreneurial Bricolage." *Administrative Science Quarterly, 50: 329-366.*
- Barney, J.B. (2002): *Gaining and Sustaining Competitive Advantage*, 2nd Ed., Prentice-Hall, Upper Saddle River, NJ.
- Benston, G. J. (1985): "The Market for Public Accounting Services: Demand, Supply and Regulation" *Journal of Accounting and Public Policy, 4: 33-79.*

- Biggadike, R. (1979): "The Risk Business of Diversification" *Harvard Business Review* (May- June), pp 102-111.
- Boselie, P., Dietz, G. & Boon, C. (2005): "Commonalities and Contradictions in HRM and Performance Research" *Human Relations Journal*, Vol. 15 (3), pp 67-94.
- Bourdieu, P. (1971): 'The Thinkable and the Unthinkable" *Times Literary Supplement*, October, Vol. 15, pp 1255-1256.
- Bourdieu, P. (1977): *Outline of a Theory of Practice*. London: Cambridge University Press
- Bourdieu, P. (1979): *Algeria 1968*. Cambridge: Cambridge University Press.
- Bourgeois, L. J. III. (1980): "Strategy and Environment: A Conceptual Integration", *Academy of Management Review*, 5, 1980, pp. 25-39.
- Bower, J.L. (1970):*Managing the Resource Allocation Process: A Study of Corporate Planning and Investment*. Division of Research, Graduate School of Business Administration, Harvard University: Boston, MA.
- Boyd, D. & Gumpert, D. (1987): "Coping with Entrepreneur Stress" *Harvard Business Review* (March-April), 61 (2), pp 44-47.
- Brittain, J.W. & Freeman, J.H. (1980):"Organizational Proliferation and Density-dependent Selection" in Fombrum, C. J. (1986): "Structural Dynamics within and between Organizations" *Administrative Science Quarterly*, Vol. 31, pp 403-421.
- Brown, S. L., & K. M. Eisenhardt, K.M. (1997): "The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations" *Administrative Science Quarterly*, 42: 1-34.
- Brown, S. L., & Eisenhardt, K.M. (1998): *Competing on the Edge: Strategy as Structured Chaos*. Boston: Harvard Business School Press.
- Burns, T. & Stalker, G.M. (1961): *The Management of Innovation*. Tavistock Publications, London.
- Burton, R.M. & Obel, B.(2004):*Strategic Organizational Diagnosis and Design: The Dynamics of Fit*, 3rd Edition, New York, NY.
- Camillus, J. (2008): "Strategy as a Wicked Problem" *Harvard Business Review*, May, pp 99-106.
- Chakravarthy, B. S. (1982): "Adaptation: A promising metaphor for strategic management", *Academy of Management Review*, 7, pp. 35-44.
- Chakravarthy, B.S. & Doz, Y. (1992): "Strategy Process Research: Focusing on Corporate Self-Renewal" *Strategic Management Journal*, Summer Special Issue 13: 5-14.
- Chandler, A. (1962): *Strategy and Structure. Chapters in History of American Industrial*

Enterprise. Cambridge, Massachusetts, M.I.T. Press, 1962

- Chandler, G.N. & Hanks, S.H. (1994): "Market Attractiveness, Resource Based Capabilities, Venturing Strategies and Venturing Performance" *Journal of Business Venturing*, Vol. 9, pp 331-349.
- Chanon, D.K. (1973): "*The Strategy and Structure of British Enterprise*" Unpublished PhD Dissertation, Division of Research, Graduate School of Business Administration. Harvard University.
- Child, J. (1972): "Organizational Structure, Environment and Performance: The Role of Strategic Choice", *Sociology*, 6, pp. 1-22.
- Child, J. (1975): "Managerial and Organizational factors associated with Company Performance Part II", *Journal of Management Studies*, Vol.12, pp. 12-27.
- Child, J. (1977): *Organization: A guide to Problems and Practice*. New York: Harper and Row.
- Child, J. (2000): "*Theorizing About Organization Cross-Nationality*" In Advances in International Comparative Management, (Ed) J.L.C. Cheng and R.B. Paterson, pp27-76. Greenwich, CT: JAI Press.
- Chiyoge B. S (2009): "*Influence of Core-Competencies on the Relationship between Co-Alignment Variables and Performance of Profit – Oriented Parastatals in Kenya*", Unpublished PhD Dissertation, University of Nairobi.
- Cohen, A. (1993): "Age and Tenure in Relations to Organizational Commitment: A Meta Analysis" *Basic and Applied Social Psychology*, Vol. 14(2), pp 143-159.
- David, J.S., Hwang, Y., Pei, B.K.W. & Reneau, J.H. (2002): "The Performance Effects of Congruence between Product Competitive Strategies and Purchasing Management Design" *Management Science*, Vol.48 (7), pp 866-885
- Davies, H. & Walters, P. (2004): "Emergent Patterns of Strategy, Environment and Performance in A Transition Economy" *Strategic Management Journal*, Vol. 25 (4), pp 347-364
- Davis, J. P., Eisenhardt, K.M. & Bingham, C.B. (2009): "Optimal Structure, Market Dynamism, and the Strategy of Simple Rules." *Administrative Science Quarterly*, Vol.54 413-452.
- Delmas, M.A & Toffel, M.W. (2009): "Organizational Response to Environmental Demand: Opening the Black Box" *Strategic Management Journal*, Vol. (29), pp 1027-1055
- Dess, G. & Beard, D. (1984): "Dimensions of organizational task environments" *Administrative Science Quarterly*, 29, pp. 52-73.
- Devinney, T. M., & Stewart, D. W. (1988): "Rethinking the Product Portfolio: A Generalized Investment Model" *Management Science*, 34: 1080-1095.

- Devinney, T. M., Yip, G. S., & Johnson, G. (2009): "Using Frontier analysis to evaluate Company Performance", *British Journal of Management*, forthcoming.
- Donaldson, L. (2006): "The Contingency Theory of Organizational Design: Challenges and Opportunities" in Burton, R.M., Eriksen, B., Hakonsson, D.D. & Snow, C.C. (Eds), *Organization Design: The Evolving State –of-the-Art*, Springer, New York, NY, pp. 19-40.
- Downey, H. K. & Slocum, J. (1975): "Uncertainty: Measures, Research and Sources of Variation." *Academy of Management Journal*,
- Duncan, R. B. (1972): "Characteristics of Organizational Environments and Perceived Environment Uncertainty", *Administrative Science Quarterly*, 17, pp. 313-327
- Dutton, J. M. & Freedman, R. D. (1985): "External and Internal Strategies: Calculating, Experimenting, and Imitating in Organizations". In Lamb, R. and Shrivastava, P. (Eds.), *Advances in Strategic Management*, 3, 31-45, New York: JAI Press.
- Eisenhardt, K.M. & Martin, J.A.(2000): "Dynamic Capabilities: What are they? *Strategic Management Journal*, October–November Special Issue 21: 1105–1121.
- Fahey, L. & Narayanan, V. K. (1986): *Macro Environmental Analysis for Strategic Management*. West, St. Paul, MN.
- Feurer, R. & Chaharbaghi, K. (1995): "Strategy Development: Past, Present and Future" *Management Decision*, Vol. 33 (6), pp 11-21.
- Fiss, P.C. (2008): "Configuration of Strategy, Structure and Environment: A Fussy Set Analysis of High Technology Firms" Paper presented at the 2008 MIT-BPS Mini Conference, the 24th EGOS Colloquium in Amsterdam.
- Fombrun, C. J. (1986): "Structural Dynamics Within and Between Organizations" *Administrative Science Quarterly*, Vol. 31, pp 403-421.
- Fox-Wolfgramm, S., Boal, K. & Hunt, J. (1998): "Organizational adaptation To Institutional Changes: A Comparative Study of First-order Changes in Prospector and Defender Banks" *Administrative Science Quarterly* 43(1): 87–126.
- Frankel, B.(2001)."The Rise of the Sociologist King." *Arena Magazine* 52(April-May):20-26.
- Fredrickson, J.W. (1986): "The Strategic Decision Process and Organizational Structure" *Academy of Management Review*, Vol. 11 (2), pp 280-297.
- Galan, J.I. & Sanchez- Bueno, M. J. (2009): "The Continuing Validity of the Structure-Strategy Nexus: New Findings 1993 – 2003" *Strategic Management Journal*, Vol. (30), pp 1234- 1243

- Ghobadian, A., Viney, H., James, P. & Liu, J. (1995): "The Issue of Environmental issues in Strategic Analysis and Choice: A review of Strategy among Top UK Corporations" *Management Decisions*, Vol. 33 (10), pp 46-58.
- Ghoshal, S., Korine, H. & Szulanski, G. :(1994) "Interunit Communication in Multinational Corporations", *Management Science*, Vol. 40 No. 1, pp. 96-110.
- Giddens, A. (1976): *New Rules of Sociological Methods*. London: Hutchinson.
- Giddens, A. (1977): *Studies in Social and Political Theory*. London: Hutchinson.
- Giddens, A. (1979): *Central Problems in Social Theory*. London: Macmillan.
- Giddens, A. (1984): *The Constitution of Society*. Cambridge, U.K.: Polity Press.
- Giddens, A. (1989): *Structuration Theory and the Constitution of Social Life*. St Martin's Press, New York,
- Gilovich, T., Griffin, D., & Kahneman, D. (Eds.). (2002): *Heuristics and biases: The psychology of intuitive judgment*. New York: Cambridge University Press.
- Grinyer, P.H., Yasai-Ardekani, M & Al-Bazzas, S. (1980): "Strategy, Structure, the Environment and Financial Performance in 48 United Kingdom Companies" *Academy of Management Journal*, Vol.23 (2), pp 193-220.
- Guest, D. E. (1997): "Human Resources Management and Industrial Relations" *Journal of Management Studies*, Vol. 24, pp 503-521.
- Habib, M.M. & Victor, B.(1991):"Strategy, Structure, and Performance of US Manufacturing and Service MNCs: A Comparative Analysis", *Strategic Management Journal*, Vol. 12 No. 8, pp. 589-606.
- Hage, J & Aiken, M. (1967): "Relationship of Centralization to other Structural Properties" *Administrative Science Quarterly*, Vol. 12, pp 72-92
- Hall, D.A & Saias, M.A. (1980): "Strategy Follows Structure" *Strategic Management Journal*, Vol. (1), pp 149-163
- Hall, R. (1963): "The Concept of Bureaucracy: An Empirical Assessment" *American Journal of Sociology*, Vol. 69, pp 32-40.
- Hambrick, D.C. (1983): "An Empirical Typology of Mature industrial Product Environment" *Academy of Management Journal*, Vol. 26, pp213-230.
- Hannan, M. & Freeman, J. (1977): "The Population Ecology of Organizations" *American Journal of Sociology*, 82, pp. 929-964.
- Hatch, M. J. (1997): *Organizational Theory: Modern Symbolic and Postmodern Perspectives*. Oxford: Oxford University Press.

- Husselid, M.(1995):“The Impact of HRM Practices on Turnover, Productivity and Corporate Financial Performance” *Academy of Management Journal*, Vol.38 (3), pp 635-672.
- Jacobson, R. (1987): “The Validity of ROI as a Measure of Business Performance” *American Economic Review*, 77:470–478.
- Jacobson, R. (1988): “The Persistence of Abnormal Returns” *Strategic Management Journal*, 9: 415–430.
- James, W. & Hatten. K. (1994): Evaluating the Performance Effects of Miles’ and Snow’s Strategic Archetypes in Banking, 1983 to 1987: Big or Small? *Journal of Business Research* 31: 145-154
- Jarzabkowski, P.(2008):“Shaping Strategy as a Structuration Process” *Academy of Management Journal* 2008, Vol. 51, No. 4, 621–650.
- Jennings, D, F. & Seaman, S.L. (1994): “High and Low Levels of Organizational Adaptation: an Empirical Analysis of Strategy, Structure and Performance” *Strategic Management Journal*, Vol. 15 (6), pp 459-475.
- Johnson, G.(1987): *Strategic Change and the Management Process*.Oxford, U.K.: Blackwell.
- Jusoh, R., & Parnell, J. A. (2008): “Competitive Strategy and Performance Measurement in the Malaysian Context: An exploratory study” *Management Decision*, 46: 5–31.
- Kahneman, D., & Tversky, A. (2000): *Choices, values and frames*. New York: Cambridge University Press.
- Kaplan, R. S., & Norton, D. P. (1996): *The balanced scorecard: Translating strategy into action*. Boston: Harvard Business School Press.
- Karake, Z.A. (1996): “Industry Turbulence and Information Technology Structure: An Empirical Investigation” *Management Decision*, Vol. 34 (7), pp 39-48.
- Keats, B. W. (1988): “The Vertical Construct Validity of Business Economic Performance Measures” *Journal of Applied Behavioral Science*, 24: 151-160.
- Ketchen, D., Combs, J., Russell, C., Shook, C., Dean, M., Runge, J., Lohrke, F., Naumann, S., Haptonstahl, D., Baker, R., Beckstein, B., Handler, C., Honig, H. & Lamoureux, S. (1997): “Organizational Configurations and Performance: A meta- Analysis”, *Academy of Management Journal*, Vol. 40 (1), pp 223-240.
- Kirby, J.(2005):Toward a Theory of High Performance. *Harvard Business Review*, 83:30–39.
- Ladd, G.J. (1994):“Corporate Environmental Excellence and Stewardship:Five Critical Tasks of Top Management” *Total Quality Environmental Management*, Vol.3(4), pp479-499
- Laitinen, E. K., & Chong, G. (2006): “How do small companies measure their performance?” *Problems and Perspectives in Management*, 4: 49-68.

- Lawrence, P.R. & Lorsch J.W.(1967):“Differentiation and Integration in Complex Organizations”, *Administrative Science Quarterly*, 12, pp. 1-47.
- Lawrence, P. R. & Lorsch J.W. (1967): *Organization and Environment: Managing Differentiation and Integration*, Harvard University Press, Boston, MA.
- Lawrence, P. R. & Lorsch J.W. (1969): *Organizations and Environment*. Richard D. Irwin, Homewood, IL.
- Leitz, R. (1981): “Determinants of Organizational Performance: An Interdisciplinary Review” *Strategic Management Journal*, Vol. 2, pp 131-154.
- Lenz, R.T. (1980): “Environment, Strategy, Organization Structure and Performance: Patterns in One Industry” *Strategic Management Journal*, Vol. 1, pp 209-226.
- Liddell-Hart, B. H. (1967): *Strategy*, Basic Books.
- Lovas, B & Ghosal, S. (2000): “Strategy as a Guided Evolution” *Strategic Management Journal*, Vol. 21, pp 875-896.
- Lowell, B. & Rumelt, R. (2009). Setting Strategy in the New Era. *McKinsey Quarterly*. June 2009. 1 – 4.
- Luo, F. & Yu, Y. (1991): *Strategic Management: Analytical Techniques*. Northeastern University of Technology Press, China. McClelland,
- Luo, Y. (1999): “Environment-Strategy-Performance Relations in Small Business in China: A Case of Township and Village Enterprises in Southern China” *Journal of Small Business Management*, Vol.37 (1), pp 37-52.
- Machiavelli, N. (1992): *The Prince*, Dover Publications, Inc. New York.
- March, J. G., & Oslen, J.P. (1976): *Ambiguity and Choice in Organizations*. Norway: Universitetsforlaget (Columbia University Press, distribution).
- March, J. G., & Sutton, R. I. (1997): “Organizational Performance as a Dependent variable” *Organization Science*, 8: 698–706.
- March, J. G. & Simon, H.A. (1958): *Organizations*. John Wiley & Sons, New York.
- Martin, J. A., and K. Eisenhardt (2010): “Rewiring: Cross-business Unit Collaborations and Performance in Multi-business Organizations.” *Academy of Management Journal* (forthcoming).
- Mason, E.C. (1939): “Price and Production of Large Scale Enterprise” *American Economic Review*, Vol. 29 (Supplementary), pp 61-74.
- McKiernan, P. (1996): *Historical Evolution of Strategic Management*, Dartmouth, Aldershot.
- McKiernan, P. (2006): “Exploring Environmental Context within the History of Strategic Management”, *International Studies of Management and Organization*, Vol. 36 (3), pp7-21.

- Meier, K.J., O'Toole Jr., J.L., Boyne, G.A, Walker, R.M & Andrews, R. (2007): “*Alignment And Results: Testing the interaction Effects of Strategy, Structure & Environment from Miles and Snow*” Paper prepared for presentation at the Public Management Research Conference; Tucson, AZ (USA).
- Merton, R.K. (1940): “Bureaucratic Structures and Personality” *Social Forces*, Vol. 18, pp 560-568.
- Meyer, W.M. (1972): *Bureaucratic Structure and Authority*. New York: Harper and Row.
- Miles, R. E. & Snow, C.C. (1978): *Organizational Strategy, Structure and Process*. McGraw Hill, New York.
- Miller, D. (1986): “Configurations of Strategy and Structure: Towards a Synthesis”, *Strategic Management Journal*, 7, pp. 233-249.
- Miller, D.(1987):“The Genesis of Configuration”, *Academy of Management Review*, Vol.12 (1), pp 686-701.
- Miller, D. (1988): “Relating Porter’s Business Strategies to Environment and Structure: Analysis and Performance Implications”, *Academy of Management Journal*, Vol. 31 (2), pp 280-308.
- Miller, D. & Friesen, P.H. (1978): “Archetypes of strategy formulation”, *Management Science*, 24, pp. 921-933.
- Miller, D. & Friesen, P. H. (1980): “Momentum and Revolution in Organizational Adaptation. *Academy of Management Journal*, 23, pp. 591-614.
- Miller, D. & Friesen, P.H. (1982): “Innovation in Conservative and Entrepreneurial Firms: Two Models of Strategic Momentum”, *Strategic Management Journal*, 3, pp. 1-25.
- Miller, D. & Friesen, P.H. (1983): “Strategy-Making and Environment: The Third Link”, *Strategic Management Journal*, 4, pp. 221-235.
- Miller, D., & Friesen, P. H. (1984): ***Organizations: A quantum view***. Englewood-Cliffs, NJ: Prentice-Hall
- Miller, D. & Toulouse, J.M. (1986): “Strategy, Structure, CEO Personality and Performance in Small Firms”, *American Journal of Small Business*, Vol.31 (4), pp 47-62.
- Miller, D., Droge, C. & Toulouse, J.M. (1988): “Strategic process and Content as mediators between Organizational Context and Structure”, *Academy of Management Journal*, Vol. 31(3), pp. 544-569.
- Miller, D., Eisenstat, R & Foote, N.(2002):“Strategy From the Inside Out: Building Capacity- Creating Organizations”, *California Management Journal*, Vol. 44 (3), pp 37-54.
- Mintzberg, H. (1972), “Research on Strategy Making”. *Academy of Management Proceedings*, 90-94.

- Mintzberg, H. (1973): *The Nature of Managerial Work*. Harper and Row, New York.
- Mintzberg, H. (1979): *The Structure of Organizations*. Prentice-Hall, Englewood Cliffs,
- Mintzberg, H. (1994): “The fall and rise of strategic planning”, *Harvard Business Review* 72(1): 107–114.
- Mintzberg, H., Quinn, H. and Ghosal, S. (1983): *The Strategy Process, Concepts, Contexts and Cases 2nd Ed.*, Prentice Hall, Inc. London.
- Nightingale, D.V. & Toulouse, J.M. (1977): “Towards a Multilevel Congruence Theory of Organization” *ASC, Vol. 22, June, pp 264-280*.
- Okhuysen, G. A., & Eisenhardt, K.M. (2002): “Integrating Knowledge in Groups: How Formal Interventions Enable Flexibility.” *Organization Science, 13: 370–386*.
- Parker, J.C. and T.R Torres (1994). Micro and Small Scale enterprises in Kenya: Results of the 1993 National Baseline Survey *USAID GEMINI Project*, March.
- Pavis, J.P., Eisenhardt, K.M & Bingham, C.B. (2009): “Optimal Structure, Market Dynamics and The Strategy of Simple Rules”, *Administrative Science Quarterly, Vol. (54), pp 413-452*
- Peacock, R. (1990): “Why Become A Small Enterprise Operator”, *Accounting Forum, (June) Vol. 14(2), pp 78-91*.
- Pettigrew, A. M. (1985): *The Awakening Giant*. Basil Blackwell, Oxford.
- Pertusa-Ortega, E.M., Claver-Cortes, E. & Molina-Azorin, J.F. (2009): “Strategy, Structure, Environment and Performance in Spanish Firms”, *EuroMed Journal of Business, Vol.3 (2), pp 223-239*.
- Pisano, G. P. (1994): “Knowledge, Integration, and the Locus of Learning: An Empirical Analysis of Process Development.” *Strategic Management Journal, 15: 85–100*.
- Pooley-Dias, G. (1972): “*The Strategy and Structure of French industrial Enterprises*” Unpublished Doctoral Dissertation, Harvard Business School, Boston, MA.
- Porter, M. E.(1980):*Competitive Strategy, Techniques for Analyzing Industries & Competitors*. The Free Press.
- Porter, M. E. (1996): “What is Strategy?” *Harvard Business Review, November-December*.
- Porter, M. E. (1998): *The Competitive Advantage of Nations*. Free Press: New York.
- Postma, T.J.B.M. & Zwart, P.S. (2001): “Strategic Research and Performance of SMEs” *Journal Of Small Business Strategy, Vol. 1292, pp 52-64*.
- Prahalad, C.K. & Hamel, G. (1990): “The Core Competencies of the Corporation” *Harvard Business Review, Vol. 68(3), pp 79-81*.

- Pugh, D.S, Hickson, D.J., Hining, C.R. & Turner, C. (1969): "The Context of Organization Structures" *Administrative Science Quarterly*, Vol. 14, pp 91-114
- Pugh, D.S, Hickson, D.J., Hining, C.R. & Turner, C. (1967): "Dimensions of Organization Structure" *Administrative Science Quarterly*, Vol. 13, pp 65-105.
- Quinn, J.B (1980): *Strategies for Change: Logical Incrementation*. Homewood, Illinois Irwin
- Ranson, S., Hinings, B. & Greenwood, R.(1980):"The Structuring of Organizational Structures" *Administrative Science Quarterly*, Vol. 25, pp 1-18.
- Rappaport, A. (1978): "Executive incentives vs. corporate growth" *Harvard Business Review*, 56:81-88.
- Rice, L.E. & Mitchell, T.R. (1973): "Structural Determinants of Individual Behaviour in Organizations" *Administrative Science Quarterly*, Vol. 18, pp 56-70.
- Richard, P.J., Devinney, T.M., Yip, G.S & Johnson, G. (2009): "Measuring Organizational Performance: Towards Methodological Best Practice" *Journal of Management*, Vol. 35(3), pp 718-804.
- Rindova, V. & Kotha, S. (2001): "Continuous Morphing: Competing through Dynamic Capabilities, Form, and Function." *Academy of Management Journal*, 44: 1263–1280.
- Rivkin, J. W., & Siggelkow, N. (2003): "Balancing search and stability: Interdependencies among elements of organizational design." *Management Science*, 49: 290–311.
- Robert, M. (1993): *Strategy: Pure and Simple*, McGraw-Hill.
- Rodgers, E. & Wright, P. (1998): "Measuring Organizational Performance in Strategic Human Resource Management: Problems, Prospects and Performance Information Markets" *Human Resource Review*, Vol. 8 (3).
- Rowley, T. J., Behrens, D. & Krackhardt, D. (2000): "Redundant Governance Structures: An Analysis of Structural and Relational Embeddedness in the Steel and Semiconductor Industries." *Strategic Management Journal*, 21: 369–386.
- Rumelt, R.P. (1974): "*Strategy, Structure and Economic Performance*", Unpublished PhD Dissertation. Division of Research, Graduate School of Business Administration. Harvard University.
- Russo, M. V (1991): "The Multidivisional Structure as an Enabling Device: A Longitudinal Study of Discretionary Cash as a Strategic Resource" *Academy of Management Journal*, Vol. 34(3), pp 718-733.
- Rumelt, R.P., Schendel, D.E. & Teece, D.J. (Eds) (1995): *Fundamental Issues in Strategy: Research Agenda*, Boston, MA. Harvard Business School Press.
- Schendel, D. E & Hoffer, C.W. (Eds) (1979): *Strategic Management: A view of Business*

Policy and Planning. Little, Brown and Co. Boston.

Selznick, P. (1943): "An Approach to a Theory of Bureaucracy" *American Sociological Review*, Vol. 8, pp 47-54.

Selznick, P. (1949): *TVA and Grass Roots*. Berkeley: University of California Press.

Selznick, P. (1957). *Leadership in Administration*. Harper & Row, New York.

Scott, W. R. (1987). *Organizations: Rational, Natural, and Open Systems (2nd Ed)*. Prentice-Hall, Englewood Cliffs, NJ.

Siggelkow, N. (2002): "Evolution towards Fit" *Administrative Science Quarterly*, Vol.47, pp 125-159

Slater, S., Olson, E. & Hult, T. (2006): The Moderating Influence of Strategic Orientation on the Strategy Formation Capability-Performance Relationship. *Strategic Management Journal* 27:1221-1231.

Smith, K. G. & Grimm, C.M. (1987): "Environmental Variation, Strategic Change and Firm Performance: A Study of Railroad Deregulation", *Strategic Management Journal*, 8, pp. 363-376.

Snow, C.C. & L. G. Hrebiniak (1980): "Strategy, Distinctive Competence, and Organizational Performance", *Administrative Science Quarterly*, 25, pp. 317-336.

Snow, C.C., Miles, R.E & Miles, G. (2005): "A Configuration Approach to the Integration of Strategy and Organization Research", *Strategic Organization*, Vol. 3 (4), pp 431-439.

Steiner, G. (1979): *Strategic Planning*, Free Press, New York.

Sun Tzu (1988): *The Art of War: a New Translation of Sun Tzu's Classic*, R.L.Wing. Doubleday, New York.

Tan, J.J. & Litschert, R.J. (1994): "Environment-Strategy Relationship and its Performance Implications: An Empirical Study of Chinese Electronics Industry" *Strategic Management Journal*, Vol. 15, pp 1-20.

Terreberry, S. (1968): "The Evolution of Organizational Environments" *Administrative Science Quarterly*, Vol. 12, pp 590-613.

Thanheiser, H, T. (1972): "*Strategy and structure of German industrial enterprise*", Unpublished Doctoral Dissertation. Graduate School of Business Administration, Harvard University, Cambridge, Mass.

Thompson, J. D. (1967): *Organizations in Action*. McGraw-Hill, New York.

Thompson, A.A. & Strickland, A.J. (1990/1992): *Strategy Formulation and Implementation*, Richard D. Irwin. Inc. Treacy, M. & Wiersema, F. (1993): *The Discipline of Market Leaders*, Addison-Wesley.

- Tregoe, B. & Zimmerman, J. (1980): *Top Management Strategy*, Simon and Schuster.
- Tsai, W., MacMillan, I. & Low, M. (1991): "Effects of Strategy and Environment on Corporate Venture Success in Industrial Markets" *Journal of Business Venturing*, Vol. 6, pp 9-28.
- Tung, R.L. (1979): "Dimensions of organizational environments: An exploratory study of their Impact on organizational structure" *Academy of Management Journal*, 22, pp 672- 693.
- Venkatraman, N. and J. C. Camillus. (1984). "Exploring the Concept of "Fit" in Strategy Research". *Academy of Management Review*, 9, 513-525.
- Venkatraman, N., & Ramanujam, V. (1986): "Measurement of Business Performance in Strategy Research: A Comparison of Approaches" *Academy of Management Review*, 11: 801–814.
- Venkatraman, N., & Ramanujam, V. (1987): "Measurement of Business Economic Performance: An Examination of Method Convergence" *Journal of Management*, Vol. 13, pp 109-122.
- Venkatraman, N. & Prescott J.E. (1990). "Environment-Strategy Coalignment: An Empirical Test of its Performance Implications", *Strategic Management Journal*, 11, pp. 1-23.
- Vernon, J. (1972): *Market Structure and Industrial Performance: A Review of Statistical Findings*, Allyn and Bacon, Boston.
- Waring, G. F. (1996): "Industry Difference in the Persistence of Firm-Specific Returns" *American Economic Review*, 86: 1253–1265.
- Weber, M. (1946): *Essays in Sociology*. Hans Gerth & C. Wright Mills (Ed). And trans. London: Routledge and Kegan Paul.
- Weick, K. E. (1969): *The Social Psychology of Organizing*. Reading, MA: Addison-Wesley.
- Weick, K. E. (1976): "Educational Organization as Loosely Coupled System" *Administrative Science Quarterly*, Vol. 21, pp 1-19.
- Weick, K. E. (1993): "The Collapse of Sense Making in Organizations: The Mann Gulch disaster." *Administrative Science Quarterly*, 38: 628–652.
- Weiss, L. (1971): *Quantitative Studies of industrial Organization*, in M. Intriligator (Ed.), *Frontiers of Quantitative Economics*, North-Holland, London.
- Youndt et al. (1996): "Human Resource Management, Manufacturing Strategies and Firm Performance" *Academy of Management Journal* Vol. 39 (4), pp 836-866.
- Zimmerman, D. (1971): *The Practicalities of Rule Use*" in Jack Douglas (Ed.) *Understanding Everyday Life*. London: Routledge and Kegan Paul.
- Zott, C. & Amit, R. (2006): "The Fit between product market strategy and business model: implications for firm performance" *Strategic Management Journal*, Vol. 29(1), pp 1-26.