

## CONTRIBUTION OF ORGANISATIONAL STRUCTURE, LEADERSHIP & RELATIONSHIP STYLES AND INNOVATION PROCESS

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### Abstract

Based on the review of the theory of organizational knowledge creation and extant literature in strategic management, this study proposed a framework that is expected to investigate the innovativeness of organizations. The framework is put forward as propositions thus: the organic structure is significantly related to transformational leadership style; the mechanistic structure is significantly related to transactional leadership style; the transformational leadership style is significantly related to the idea generation stage in the innovation process; the transactional leadership style is significantly related to the implementation stage of the innovation process; the relationship style moderates the impact of transformational leadership on the idea generation stage of the innovation process; and the relationship style moderates the impact of the transactional leadership on the implementation stage of the innovation process. This therefore connotes that an organization could be ambidextrous at the same time and within the same department. Managers that are aspiring to develop innovative employees are thus advised to employ both structures and leadership styles with a good relationship atmosphere among supervisors, employees and the organization. This is because innovative employees will translate to innovative, robust and competitive organization even in the face of environmental turbulence and complexities, and stiff competition.

**Keywords:** Organizational structure, Leadership styles, Relationship styles, Employee innovativeness, Organizational innovativeness

### INTRODUCTION

Organizations today are immersed in a competitive and constantly changing environment. These changes basically include: changes in products/services; technology and markets. For instance, several products are being reinvented, while the advancement in Information, Communication and Technology (ICT) is continuously turning-around the way and manner services and/or products are being delivered or produced. Technology is advancing so quickly and forcing organizations to adapt/adopt new strategies and in some cases alter their product mix. It is also obvious that globalization (which involves the integration of markets and nation-states) is enabling individuals, corporations and countries to move quickly around the world.

Furthermore, increase in corruption with the attendant changes in the status of those involved; incessant occurrence of natural disasters with their attendant death tolls; increase in fertility rate with its incidence of high population rate among other issues are gradually occasioning the rapid changes in markets all over the world. Above all, mention must be made of the consequential effects of the global economic meltdown in the environment of business. This, of course, implies that the aforementioned issues and many more have increased the turbulence in the environment and have further precipitated factors that tend to influence the

decisions and operations of organizations. To adapt, change and by extension generate more profit, organizations need to continuously reinvent themselves. One of the ways through which organizations do this is by being innovative. Innovation is a critical force in the improvement of organizational performance and in enhancing economic growth and development. More so, organizations must be innovative to survive and flourish in the competitive and rapidly changing environment.

The fact that employees and leaders in an organization are involved in idea generation and implementation makes the incorporation of the concept of organizational structure in this study very important. Strategic management researchers have alluded to the fact that organizational innovativeness is related to leadership style (Jung, 2001, 2004; Duygulu & Ozeren, 2009; Khan et al., 2009; Feng et al., 2010), relationship style in an organization influences employee innovativeness (Wang et al., 2010; Lee & Yu, 2010), and organizational structure enhances employee innovativeness (Amiri et al., 2010). Despite the importance of leadership styles and relationship styles in employing organizational structure and the innovation process as a strategy for organizations to adapt to the complex and turbulent business environment, researches involving the Nonaka & Takeuchi (1995) theory of organizational knowledge creation (innovation process) which focuses on how knowledge is converted and socialized within organizational context, have not sufficiently brought to the fore the organizational structure (i.e., organic and mechanistic) that is best suited to a specific leadership style (e.g., transactional and transformational) and relationship style (between the organization and supervisors; the organization and employees; the supervisors and the employees; and among the employees). Thus, there is a need to examine the contribution of organizational structure, leadership and relationship styles and innovation process to organisational innovativeness.

## **THEORETICAL BACKGROUND: Theory of organizational knowledge creation**

Having recognized the importance of the innovation process or knowledge creation in organizations, scholars have tried to find out the exact mechanism for it. Among all, Nonaka & Takeuchi (1995) have developed a theory of organizational knowledge creation, which have gradually gained significance in the last decade. Nonaka & Takeuchi posit that knowledge creation is the result of the interaction and conversion between two kinds of knowledge, that is, tacit and explicit knowledge. There are four modes of conversion mechanisms in the process of knowledge creation: socialization (from tacit knowledge to tacit knowledge), externalization (from tacit knowledge to explicit knowledge), combination (from explicit knowledge to explicit knowledge), and internalization (from explicit knowledge to tacit knowledge).

The conversion of tacit and explicit knowledge is a social process between individuals (Popadiuk & Choo, 2006; Vonkrogh, 1998). Based on a constructionist perspective (Vonkrogh, 1998), Nonaka & Takeuchi (1995) treated knowledge as “justified true belief” instead of what cognitivists called “representation” meaning that knowledge is universal. In this paper, the view that individuals have to justify the truthfulness of their beliefs through personal sense making and individual experience under the interaction between themselves and the social context which they are embedded in is adopted (Vonkrogh, 1998; King & Zeithaml, 2003; Murray & Blackman, 2006). This implies that organizational innovativeness can be enhanced by the organizational structure, and the relationship and leadership styles within the organization.

Though, Nonaka & Takeuchi (1995) theory of organizational knowledge creation gives us a clear picture of how knowledge is converted and socialized within organizational context. Nevertheless, some issues need to be further investigated. Nonaka & Takeuchi did not categorize knowledge creation (innovation process); the system/structure (if any) that facilitates the process was not mentioned; and the leadership and relationship styles that enhance employees' innovativeness were not identified. This theory is therefore employed as a guide in assessing and linking the organic and mechanistic structures, the innovation process, and leadership and relationship styles.

## LITERATURE REVIEW

### Effect of Leadership Styles on Organisational Innovativeness

A wide range of factors have been found to affect organisational innovativeness. Of these factors, the managers' leadership style has been identified as the most influential factor (Jung et al., 2004). To verify this assertion, Duygulu & Ozeren (2009) conducted a study in six different firms with a total sample size of 113 employees in order to specifically and empirically investigate the joint impact of particular leadership styles (employee orientation, production orientation, change centered leadership) and organizational culture typologies (market, hierarchy, adhocracy, clan) on firm's innovativeness within Turkish business context. Using regression analysis, the result showed that adhocracy culture was the most common variable for all firms within the sample, which explained innovativeness. On the other hand, based on firm level analysis, it was found that for construction and chemical firms, it was market culture; for steel and iron firms, it was employee oriented leadership; for pharmaceutical firms, it was hierarchy and change centered leadership; and finally, for aviation firms, it was adhocracy culture that explained the firms' innovativeness. Considering the departmental analysis, for production department, hierarchy and change centered leadership; and for marketing department, adhocracy culture was determined as a common variable that explained innovativeness in the firm.

Similarly, to explore the moderating role of organizational size in the relationship between transformational leadership and organizational innovativeness, Khan et al. (2009) examined the impact of transformational leadership on organizational innovativeness. A purposive sample of 296 managers from the telecommunication sector of Pakistan participated in the study. The hierarchical regression models of the study demonstrated that organizational size significantly moderated the relationship between transformational leadership and organizational innovation. The results further revealed that organizational size significantly moderated the relationship between all facets of transformational leadership (attributed charisma, inspirational motivation, intellectual stimulation and individualized consideration) and organizational innovation except idealized influence. The results also exhibited that transformational leadership impacted organizational innovation positively and significantly.

In another study to determine the effects of transactional leadership, psychological empowerment and empowerment climate on creative performance of subordinates by Feng et al. (2010), 101 teams involving 497 team members and 101 leaders, in a large multinational company in China were surveyed. A hierarchical linear model was used to examine the hypothesized mediated moderation model. It was found that: (1) individual psychological empowerment was positively related to creative performance; (2) the relationship between transactional leadership and subordinates' creative performance was moderated by team

empowerment climate; (3) individual transactional leadership behaviour was positively related to subordinates' creative performance in teams with higher empowerment climate, but negatively related to subordinates' creative performance in lower empowerment climate; and (4) the relationship between transactional leadership, team empowerment climate and creative performance was partially mediated by subordinates' psychological empowerment perception.

More so, Jung (2001) examined the effect of transformational and transactional leadership styles and brain storming conditions on real and nominal group numbers divergent thinking. Participants performed a brainstorming task, and their performance was assessed using fluency and flexibility. Using Multivariate Analysis of Covariance (MANCOVA) and Analysis of Covariance (ANCOVA), the results showed that the participants in the transactional leadership condition perceived their confederate leader as significantly more transformational; and significantly generated greater numbers of unique ideas than their counterparts in the transactional leadership condition. In addition, ideas generated by the nominal group participants were significantly more creative than those generated by the real group participants.

## **Effects of Relationship Styles and Organizational Structure on Organisational Innovativeness**

Employee creativity makes an important contribution to organizational survival and development. Hence, researchers have become increasingly interested in identifying the conditions that influence employee creativity. One of these conditions is work support for creativity. But, the mechanism surrounding the support-creativity link is not well understood. To help address this situation, Wang et al. (2010) conducted a study to examine the mediating roles of intrinsic motivation and positive mood in the effect of support from both supervisors and coworkers on employee creativity. Using data from 233 employees in the Peoples Republic of China (PRC), the authors hypothesized and found that: (1) work support from both supervisors and coworkers was positively related to employee creativity; (2) intrinsic motivation mediated these relationship; and (3) positive mood mediated the relationship between the support from supervisors and creativity, but not the relationship between support from coworkers and creativity.

Furthermore, Lee & Yu (2010) conducted a study with the purpose of analyzing how different relationship styles of employees in the hi-tech industry influence innovation performance. The study sought to know whether the intimacy among employees in each relationship style has a positive effect on innovation performance. Using Pearson correlation, the result showed that when an employee has a better interpersonal relationship in the organization and interacts better with the organization, supervisor and colleagues, the innovation performance is higher. The authors concluded that managers of hi-tech industry should pay more attention on the intimacy among organizational members. Also, the innovative performance of the organization can be improved via job rotation, implementation of mentoring system, and role-playing activities.

As organizations move towards innovativeness or a knowledge-based and intellectually centered process, they need organic structure, flexibility and agility to provide the necessary ground for intra-organizational creativity, innovation, entrepreneurship, promote knowledge growth and create a learning organization. To this end, Amiri et al. (2010) conducted a study to examine the effect of organic structure on knowledge productivity factors (i.e., human

capital, social capital and organizational capital) in various domestic industries. The results showed that most of the studied industries have an organic structure. Thus, the existence of such organic structures leads to an increase in knowledge-orientation in organizations thereby helping the organization to meet environmental needs and challenges. It was also found that there is a positive and significant relationship between organizational organic structure and intellectual capital.

Today, organizations build up their competitive advantage by enlarging and enhancing their idea/knowledge repository (Kogut & Zander, 1992). Therefore, seeking ways to generate new idea/knowledge has become a top priority of top management team. New idea could be generated in several ways. For instance, organizations could generate new idea based on existing idea or they could spend more on experiment and search for new idea/knowledge which will differ from existing one (Banner & Tushman, 2003). Though the importance of developing both capabilities of idea/knowledge generation has been highlighted, the mechanisms that lead to and coordinate the innovation process remain much more to be investigated (Jansen et al., 2006). Jansen et al. asserted that although some empirical studies have examined the impact of different coordination mechanisms on exploratory and exploitative innovation (Banner & Tushman, 2003; Rothaermel & Deeds, 2004), findings are mixed; hence there is need for further investigation. Jansen et al. further noted that prior research mostly focused on formal organizational structure and does not pay too much attention on the influence of informal social relations (like leadership and relationship styles) on the development of innovation (Subramaniam & Youndt, 2005). To make comparison, structural context refers to the establishment of tangible administrative mechanisms, while social relation, which is intangible in nature, facilitates the coordination of organisational members. It is important to note therefore that this issues points to the concept of “ambidexterity”. The term “ambidexterity” was initially used by Duncan (1976) to describe organization’s need to develop “dual structures” to cope with the tension between alignment (similar to the idea generation stage of the innovation process) and adaptation (similar to the implementation stage of the innovation process). At first, organizational scholars treated this contradictory tension as a trade-off in the organization’s development, but now more and more attention has shifted to paradoxical thinking (Gibson & Birkinshaw, 2004). That is, in the present complex, turbulent and competitive environment, organizations have no choice but to develop both capabilities at the same time and within the same organizational department. Consequently, this study follows Gibson & Birkinshaw (2004) notion of “contextual ambidexterity” that organizations are to and have to simultaneously develop alignment and adaptability under the same organizational context. They differentiated “contextual ambidexterity” from “structural ambidexterity” in that organizational features are more than formal structure. Moreover, organizational ambidexterity would be best achieved not by establishing dual structure rather by arranging an organizational context which may encourage and enable organizational members to develop skills at coping with the tension between adjustment and adaptation by their own judgment (Gibson & Birkinshaw, 2004).

It can be observed from the literature reviewed that research works that have established a relationship among organizational structure, leadership and relationship styles, and organisational innovativeness are still rare. This study is therefore aimed at exploring the possibility of a relationship among the constructs; and of the moderating effect of the relationship style between the leadership styles and the innovation process.



## CONCEPTUAL FRAMEWORK AND PROPOSITION DEVELOPMENT

### Propositions between Organizational Structure and Leadership Styles

The organizational structure is a framework of roles, responsibilities, authority and communication relationships that are deliberately designed to accomplish an organization's tasks and achieve its objectives. The organizational structure is also called the organizational chart or organogram (Ottih, 2008). Burns & Stalker (1961) were the first to indicate that different types of organizational structures might be effective in different situations. Furthermore, Burns & Stalker identified two extreme type of organizational structure. The mechanistic structure which is found in organizations operating under stable conditions, and the organic structure which is found or rather is best suited, to organizations operating under unstable conditions. Burns & Stalker also suggested eight characteristics or factors (task complexity, task definition, responsibility, control, expertness, communication, loyalty and prestige) of organizational form that vary between these two extreme forms of organizational structure (Figure 1).

Furthermore, Gold et al. (2001) argued that knowledge can be leveraged by means of organizational structure to facilitate the flow of organizational knowledge. This organizational knowledge is generated by knowledge workers or employees via learning in knowledge-based or innovative organizations. Knowledge-base results in organizations means innovation (Amiri et al., 2010). It is generally accepted that leadership/managerial style supports innovation or knowledge management initiatives which in turn results in perceived benefits (Zammuta & O'Connor, 1992; Goh, 2003). Other scholars deem organizational structure as one of the forms of control (Blau & Scott, 1962; Lebas & Weigenstein, 1986) which aims to encourage organizational members to behave towards organizational goals (Cardinal, 2001).

Knowledge is embodied in a person; generated by knowledge workers or employees; and made productive by the manager/leader of the organization (Drucker, 2001; Amiri et al., 2010). To respond to the competitive business environment, adaptive leadership is considered to be an appropriate tool (Bass & Avolio, 1990). This adaptive leadership behaviour is termed transformational leadership and is known to affect innovation, especially organization's tendency to innovate (Gumusluoglu & Llsev, 2009). This organization's tendency to innovate implies idea generation in the innovation process.

Transformational leadership has five components: (1) idealized influence: refers to the leaders charismatic actions that focus on values, beliefs and sense of mission; (2) attributive charisma: is made up of leader's socialized charisma, that is, perception of the leader as being confident and powerful; (3) inspirational motivation: includes techniques leaders use to boost their followers by taking into view the optimistic future and determined goals; (4) intellectual stimulation: refers to challenging followers to practice creative thinking and finding solution to difficult problems; and (5) individualized consideration: includes the behaviour displayed by the leader that contributes to the satisfaction of the followers (Avolio et al., 1999).

Past researchers have found that transformational leaders are able to arrange values and norms of followers; encourage them to bring change into their personal as well as organizational level, and help them perform beyond expectation (House & Shamir, 1993; Jung & Avolio, 2000). Transformational leaders are: proactive; works to change the organizational culture by implementing new ideas; motivates and empowers employees to

achieve company's objectives by appealing for higher ideas and moral values (Bass, 1985). Conversely, transactional leaders overemphasize detailed and short-term goals, and standard rules and procedures. They do not make effort to enhance followers' ability to generate new ideas or better still, to be innovative. Transactional leaders are responsive; works within the organizational culture; makes employees achieve organizational objectives through rewards and punishment. They are quite effective in guiding efficient decisions which are aimed at cutting costs and improving productivity, and are highly directive and action oriented. A transactional leader has a predictable impact on innovation behaviour and performance (Fenget al., 2010).

Transactional leadership, according to Bass (1985) is characterized by the following three factors: (1) contingent rewards, a leadership style which provides material and mental rewards according to the completion of promised obligations by subordinates, based upon specific role and task requirement; (2) active management-by-exception, which refers to a style of leadership whereby the leader carries out positive supervision of performance to avoid mistakes; and (3) passive management-by-exception, a style of leadership whereby the leader intervenes only after the appearance of behaviours or mistakes against the requirements.

A critical juxtaposition of the organic and transformational leadership style showed that they share similar characteristics. This can also be said of the mechanistic structure and transactional leadership style (Figure 1). Therefore, we propose that:

**Proposition 1:** the organic structure is significantly related to the transformational leadership style.

**Proposition 2:** the mechanistic structure is significantly related to transactional leadership style.

## Proposition between Leadership Styles and the Innovation Process

The concept of innovation as noted by De Jung (2006) was first considered by Schumpeter (1943). According to De Jung; Schumpeter described it as innovation process - creation of new brand, products, services and processes, and its impact on economic development. It is an activity intended to develop an idea, carry it out, react to it and modify it where necessary (Van de ven, 1986). Innovation is the adoption of new approaches for an organization (Lee & Yu, 2010). But there is a school of thought that does not concern itself with what innovation means, rather it concentrates on specifying different aspects and stages of the innovation process. An example of these is the definition of innovation by Thompson (1969) – innovation is the generation, acceptance and implementation of new ideas, processes, products and services.

The innovation process according to Wilson (1966) is divided into three stages - idea conception, proposal, and adoption and implementation. But the current study is adopting it as four stages thus: idea generation, proposal, adoption and implementation. The idea generation stage is where an idea regarding something new (product, production process, service, system, method, policy) is conceptualized by a person or a group of persons in the organization. The second stage is the proposal stage, it is where an idea or concept is transformed into a proposal for official acceptance. The third stage is the adoption stage, it is where a proposed innovation is legitimated or becomes officially accepted. This is the stage where the decision for giving the innovation the attention needed in effort, time and money to be fully developed is made. The final stage is the implementation stage, it concerns the actual

utilization of the innovation by organizational members as they perform their tasks. In the case of new products this might include the trial of new product before a commitment is made for its full establishment.

Comparing the leadership styles (transactional and transformational) and the two extreme stages (idea generation and implementation) in the innovation process, the study therefore adopts the notion that the leadership styles for the two stages of the innovation process should be differentiated. The essence is to put in place the appropriate leadership needed to facilitate employees' innovativeness. Transformational leadership style is deemed to facilitate idea generation, while the transactional leadership style enhances idea implementation. Consequently, we propose that:

**Proposition 3:** transformational leadership is significantly related to the idea generation stage of the innovation process.

**Proposition 4:** transactional leadership style is significantly related to the implementation stage of the innovation process.

### **Proposition on the Moderating Effect of the Relationship Style**

Organizations in effect are made up of the work and the relationship style (between the organization and supervisors; the organization and the employees; supervisors and employees; and among the employees). Thus, the nature of this relationship and the task structure among the employees depicts the organization structure. However, the extent to which an employee in an organization can voluntarily share his/her knowledge with colleagues or the organization depends on the employee's role in the work group and the nature of the relationship the employee has with fellow workers, the supervisor and the organization (Graen, 1976). Usually, employees have more willingness to work hard when they maintain a good relationship with their supervisor. In general, mutual trust, respect, loyalty and obligation are higher between members who have better relationships in an organization. Given a good relationship atmosphere, employees can share their knowledge and experiences with others in an organization. Thus, the organizational and customer capital of such company will be increased and a core value will be created within the company (Petrash, 1996).

According to Lee & Yu (2010) knowledge sharing allows members of an organization to learn more knowledge and more importantly, it provides the organization with an efficient tool to maintain competitive advantages. Also, with increasingly updated technology and information, the work of physical labour has been gradually replaced by new technology and machines, and knowledge will be an occupational prerequisite in the new knowledge economic era. Learning important knowledge and skills within the organization through the establishments of relationship among members is helpful not only in enforcing collaboration, but also in spacing up the accumulation of knowledge assets for the organization to improve its innovative performance.

According to Drucker (2001) knowledge is always embodied in a person, carried by a person, created, argued or improved by a person; applied, taught and passed on by a person; used or misused by a person. The shift to knowledge society therefore puts the person in the center. Organizations are run by persons. These persons are made up of the manager/leader of the organization and the employees in the organization. The employees generate and implement the idea under the leadership of the manager/leader. The manager is someone who makes knowledge productive. The challenge of the management/leadership becomes which

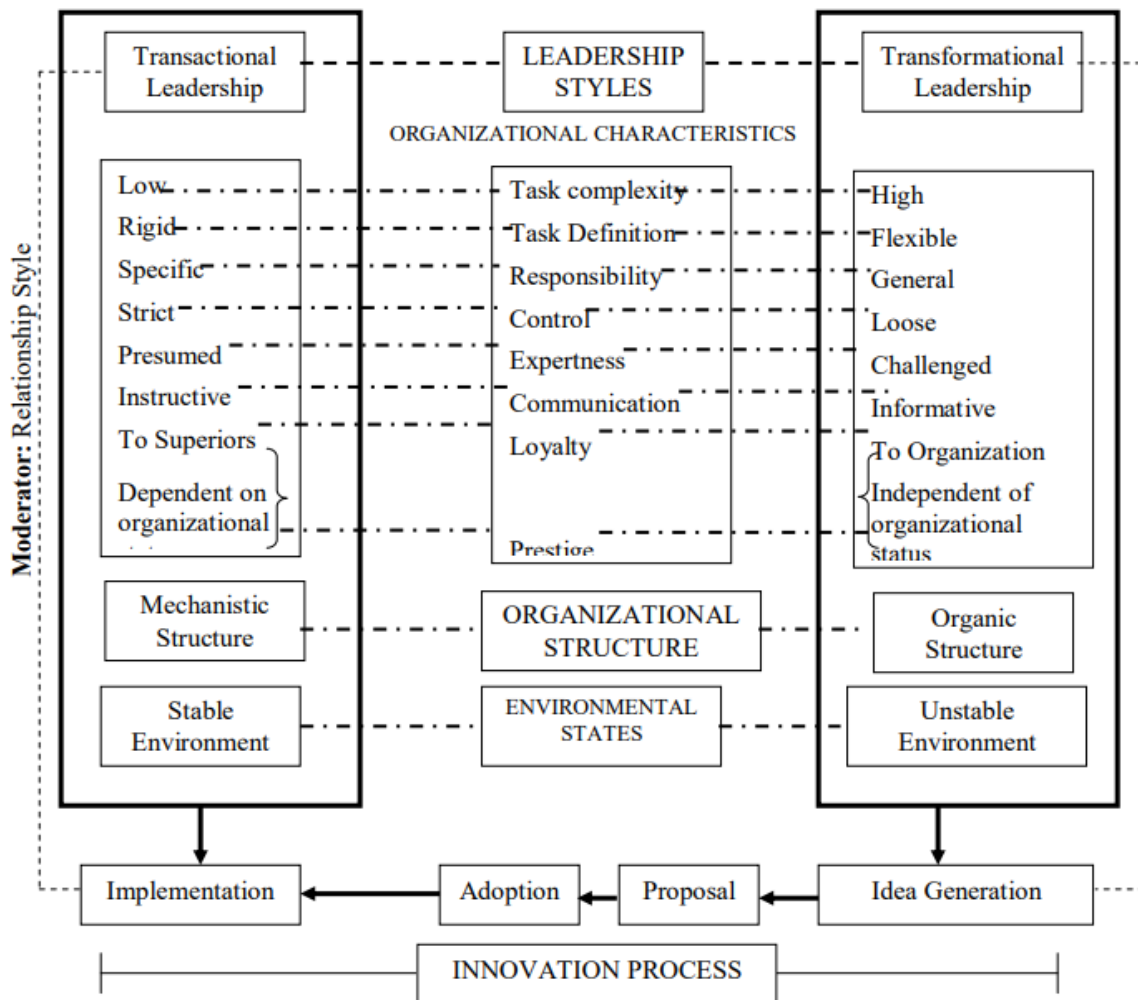


organizational structure should be adapted so as to foster the right relationship among employees and supervisors and by extension enhance employees' innovativeness. We therefore propose that:

**Proposition 5:** the relationship style moderates the impact of transformational leadership on the idea generation stage of the innovation process.

**Proposition 6:** the relationship style moderates the impact of transactional leadership on the implementation stage of the innovation process.

**Figure 1: Proposed Conceptual Framework**



The proposed conceptual model in Figure 1 relates the innovation process to leadership styles (transactional and transformational) and the forms of organizational structure as put forward by Burns & Stalker (1961). Figure 1 further depicts the moderator variable, relationship style, and the extent to which it moderates the relationship between leadership styles and the innovation process. It can be observed from Figure 1 that as the innovation process moves from the idea generation stage to the implementation stage, the organization structure becomes less organic and more mechanistic.

## CONCLUSION AND RECOMMENDATIONS

This paper conceptualized the relationship among organizational structure (organic and mechanistic), leadership styles (transactional and transformational), relationship style (between the organization and the supervisor; the organization and the employees; the supervisors and the employees; and among the employees) and the innovation process. Prior researches have not established the contribution of organizational structure, innovation process, and leadership styles to organizational innovativeness with relationship style as a moderator. The knowledge creation (or innovation process) theory by Nonaka & Takeuchi (1995) served as the theoretical background as it helped to establish the relationship among the constructs, and the fact that an organization could be ambidextrous at the same time in the same department.

The study developed propositions and a framework to be used by organizations desiring to be innovative in the turbulent and competitive environment. The propositions are: the organic structure is significantly related to the transformational leadership style; the mechanistic structure is significantly related to transactional leadership style; the transformational leadership style is significantly related to the idea generation stage of the innovation process; the transactional leadership style is significantly related to the implementation stage of the innovation process; the relationship style moderates the impact of transformational leadership on the idea generation stage of the innovation process; and the relationship style moderates the impact of transactional leadership on the implementation stage of the innovation process. Hence, the developed propositions signified the crafting of hypotheses among the constructs. The propositions suggests that organizations willing to be innovative, robust and vibrant in the present dynamic, turbulent and competitive environment can be ambidextrous at the same time and within the same department, that is, by adopting the provisions of the framework in the Figure 1.

Managers can influence employee creativity and organizational innovativeness by defining and shaping the work contexts within which employees interact to define goals, problems and solutions; by articulating a vision that emphasizes long-term over short-term business outcomes (i.e., growth and value rather than quarterly profit), leaders can direct employees' individual and joint efforts towards innovative work processes and outcomes; by creating and sustaining an organizational structure, climate and culture that nurtures creative efforts and facilitates diffusion of learning, leaders can significantly boost organizational creativity (or innovativeness); and by developing and maintaining a system that values and rewards creative performance through compensation and other human resource related policies. When an organization provides intrinsic and extrinsic rewards for efforts to acquire new skills and to experiment with creative work approaches, employees' desire to engage in creative endeavors will be constantly reinforced. To further validate and enhance the propositions, and by extension add to the robustness of the Nonaka & Takeuchi (1995) theory of knowledge creation (or innovation process), we suggest that empirical studies should be conducted using the propositions and the framework.

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