

# ENTERPRISE FACTORS AS AMBIDEXTERITY ANTECEDENTS: CONTINGENCY MODEL FOR AMBIDEXTROUS ORGANIZATIONS

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## ABSTRACT

*Ambidexterity broadly refers to an organization's ability to pursue two disparate things at the same time. Ambidextrous firms are capable of exploiting existing competencies as well as exploring new opportunities with equal dexterity. If a firm wants to gain these advantages and want to be ambidextrous; some organizational antecedents should support this strategy. Most researches focused on generally the inherent tension of ambidexterity elements or specifically an organizational factor as the antecedent. While according to the principle of strategic alignment, organizational performance is the consequence of fit between two or more factors such as strategy, structure, culture and environment. Therefore antecedents of organizational ambidexterity are investigated and organizational strategy, structures and culture are described as critical promoters of ambidexterity. Moving towards ambidextrous organization requires capable organizations of repeated change management at times of industry transitions that is expected not to be achieved without considering effective interplay of change in these three factors and their paradoxical behaviors.*

*This research addresses these gaps and presents a management model that seeks the balance of exploitative and explorative features of organizational strategy, structure and culture which is affected by environment. Our review resulted in the development of a management model that can be applied to describe, analyze, diagnose and promote ambidextrous organizations suggests that sustainable success can be achieved only if the organizations continuously balance paradoxical tensions of strategy, structure and culture concurrently.*

**Key Words:** Organizational Ambidexterity, Exploitation, Exploration, Structure, Strategy, Culture.

## INTRODUCTION

Economic downturns, like the current one, emphasize the need to respond to the rapidly changing market brings about challenges that organizations need to overcome in order to survive in the long run as well as fulfil short-term goals. Pursuing both these goals is proven to be a difficult task. In fact, most organizations do not survive in the long run (O'Reilly and Tushman, 2011). According to March (1991) organization activities should be monitored within exploration includes processes captured by conditions such as variation, risk taking, experimentation, flexibility, discovery and innovation, whereas exploitation concerns the terms like refinement, choice, production, efficiency, selection, implementation, and execution. Exploratory forecast and adapt to future trends while exploitative innovation fulfil immediate market needs. Being able to balance these two goals is described as organizational ambidexterity that was first coined by Duncan (1976). Ambidexterity involves the capability to both exploit existing knowledge, assets, and customers/markets for short-term profits and also explore new knowledge, technologies, and customers/markets to enhance long term development (O'Reilly & Tushman, 2008). Researchers have increasingly come to recognize the importance of balancing seemingly contradictory tensions (Adler et al., 1999; J. S. Brown, J. S. & Duguid, 2001; Katila & Ahuja, 2002).

Several scholars regarded that there is a trade-off between aligning the organization to exploit existing competencies and exploring new ones (Ancona, Goodman, Lawrence, & Tushman, 2001; Floyd & Lane, 2000; Levinthal & March, 1993). Earlier research had often claimed that organizational practices that simultaneously address efficient exploitation and effective exploration may be impossible to achieve (Gibson & Birkinshaw, 2004, Hannan & Freeman, 1977; McGill, Slocum, & Lei, 1992; Miller & Friesen, 1986 Simsek, 2009). In his 1991 article, March conversely argues that successful firms are ambidextrous contributed to a general shift in organizational research from trade-off to paradoxical thinking (Eisenhardt, 2000; Gavetti & Levinthal, 2000; Lewis, 2000).

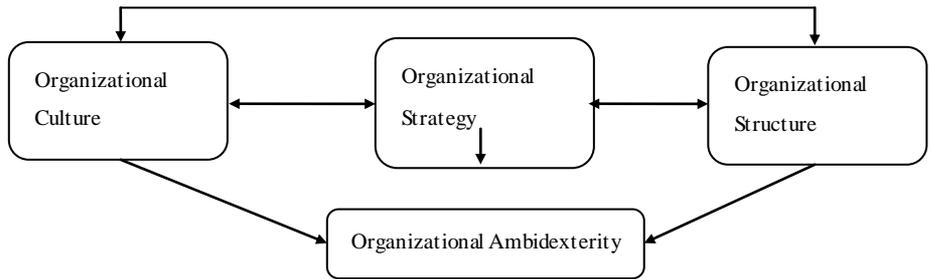
While early conceptual research on organizational ambidexterity has been expanded to empirical studies on the relationship between organizational ambidexterity and firm performance (Gibson & Birkinshaw, 2004; He & Wong, 2004), how organizations achieve ambidexterity or the antecedents of balancing exploration and exploitation are yet to be understood through further study (Jansen, Bosch & Volberda., 2006; Gibson & Birkinshaw, 2004).

Most of scholars studied ambidexterity and achieving the balance from the viewpoint of structure. Structural ambidexterity achieves the balance through temporal separation (Gupta, Smith and Shalley, 2006; Simsek et al., 2009), while contextual ambidexterity simultaneously explore and exploit within a business unit (Gibson and Birkinshaw, 2004, Simsek et al., 2009). However few researches emphasize ambidexterity from the viewpoint of strategic management (e.g. Lubatkin et al., 2006; Smith and Tushman, 2005) and less is argued that ambidexterity is grounded in the type of organizational culture (Ghoshal and Bartlett, 1994; Gibson and Birkinshaw, 2004; Simsek et al., 2009).

Structure has a considerable impact on the development of organization using its content, dimensional and environmental aspects, it is considered to be one of the factors which enhance the productivity of organization. But as strategy is first formulated in organization and then managers develop structure, appropriate drafting of strategy must not be forgotten in a way that organization can fulfill its main objectives. This necessitates an appropriate culture within the organization that will support the organization in implementing strategies rather than an obstacle to the failure of strategy (Beygi, 2010).

Organizational structure and culture are typically part of strategic decisions of the top management (Lyles and Schwenk, 1992). Studies have also proposed a variety of antecedents, and begun to specify more complex relationships and potential moderating effects (Auh & Menguc, 2005; Jansen, van den Bosch, & Volberda, 2006). Yet most researches focused on generally the inherent tension of ambidexterity elements or specifically an organizational factor as the antecedent. Thus we see a need for an additional assessment of ambidexterity also from a 3dimensional perspective: Organizational strategy, structure and culture. This research addresses these gaps and presents a management model that designs Strategy, Structure and culture as three basic organizational factors paradoxically to achieve ambidextrous organization.

**CONCEPTUAL FRAMEWORK**



**Fig 1. Organizational Ambidexterity Antecedents**

**MUTUAL RELATIONS BETWEEN STRATEGY, STRUCTURE AND CULTURE**

Strategy refers to direction and scope of an organization over the long-term that achieves advantage for the organization through its configuration of resources within a challenging environment, to achieve its markets, customers or client’s acceptance and to fulfill stakeholder expectations (Johnson et al. 2008). Organizational strategy is long-term plan for organization which helps organization achieve its goals in a competitive environment (Benet, 1999). Organizational strategy emphasizes the monitoring and evaluation of external opportunities and threats in light of comparative strengths and weaknesses to generate and implement a new

strategic direction (Hunger and Wheelen, 2007). It is a continuous, iterative process aimed at keeping an organization as a whole appropriately matched to its environment (Certo and Peter, 1991). Certo and Peter further state that organizational environments are constantly changing and organizations must be modified accordingly to ensure that organizational goals can be attained.

Strategy is the force that mediates between the firm and its environment. Firms whose strategy and structure are aligned should be less vulnerable to external changes and internal inefficiencies, and should thus perform better because “the structure provides the necessary systems and processes essential for successful strategy implementation” (Habib and Victor, 1991, p. 589). Chandler studied almost 100 of America’s largest firms from 1909 to 1959. He concluded that organization structures follow the growth strategies of firms. In his 1962 groundbreaking work, Chandler showed that a long-term coordinated strategy was necessary to give a company structure, direction, and focus. He says it concisely; structure follows strategy (Chandler, 1962).

Structure, whether formally or informally defined, such as a built structure or a structure of society, has two aspects. It includes, first, the lines of authority and communication between different administrative offices and officers and second, the information and data that flows through the lines of communication and authority (Chandler 1962). The structure can affect the effectiveness of managers through the frequency of information among members, because the frequency of information facilitates knowledge distribution and sharing (Davenport & Prusak, 1998). Organizational structure can be viewed as the way responsibility and power are allocated inside the organization and work procedures are carried out by organizational members (Blau, 1970; Dewar & Werbel, 1979; Germain, 1996; Gerwin & Kolodny, 1992).

Organizational structure models, as a particular configuration of structural dimensions, direct and shape the manner in which organization members perform their tasks in the course of achieving the organization’s goals. Since both structure and culture determine the behavior of organization in different ways, it can be assumed that the model of the organizational structure influences organizational culture (Janićijević, 2013). Consequently researchers analyzed culture and structure and their mutual interaction (Wei, Liu, Herndon, 2011; Singh, 2011; Zheng, Yang, McLean, 2010). It is quite possible that the compatibility of the behavior determined by the structural framework in an organization, and the behavior determined by cultural assumptions and values has an impact on strength or weakening of organizational culture. On the other hand, organizational culture realizes its impact on shaping organizational structure through forming the interpretative schemes of the top management, which selects the organizational structure model (James, James, Ashe, 1990).

Therefore the character of different components of management and organization, such as strategy and structure emerges precisely from the way in which employees and management understand organizational reality and behave in it which is organizational culture (Wilderom, Glunk & Maslowski, 2000).

Culture has been identified as a pattern of shared assumptions, beliefs, and expectations that guide members’ interpretations and actions by defining appropriate behavior within an organization (Fiol, 1991; O’Reilly & Chatman, 1996). Cultural norms typically form around behaviors that are significant to a group such as how to interact with one another and prioritize objectives (e.g., Bettenhausen & Murnighan, 1991). Organizational culture is a form of collective interpretative scheme shared by the members of an organization, due to which they assign meanings to occurrences, people, and events within and outside of the organization in a similar way and treat them similarly (Schein, 2004; Alvesson, 2002; Martin, 2002).

Many studies have tried to prepare some conceptual models and test the effect of organizational culture (Daulatrum B. Lund, 2003; Mehta and R.Krishnan, 2004; Zabid and Sambasivan, 2004; Naranjo-Valencia et. al., 2011). A noticeable influence of a powerful culture clears up on the subject of strategy implementation that only a few studied emphasize on the effect of culture on strategy implementation (SakuMantere, 2000; Van Der Maas, 2008). This is in line with previous studies which had considered relationships between organizational culture and organization’s performance indicators (Fey and Denison, 2003; Pirayeh et.al., 2011; Ouchi, 1981; Lee and Tseng, 2005; Abdul Rashid et.al, 2004; Carnall, 1990; Naranjo-Valencia, 2011; Lopez et.al, 2004; Davenport and Prusak, 1997).

## STRATEGY AND AMBIDEXTROUS ORGANIZATION

A number of studies have provided arguments on paradoxical phrases assumed for strategy processes, albeit using different terms and mostly without referring to one another.

**Table 1: Contradictory Organizational Strategy Tensions**

SCHOLAR	EXPLOITATION STRATEGY	EXPLORATION STRATEGY
Burgelman (1991, 2002)	Variation-Reducing or Induced	Variation Increasing or Autonomous
The induced processes concern initiatives that are within the scope of the organization’s current strategy and build on existing knowledge, whereas the autonomous processes concern initiatives that emerge outside the current strategy’s scope and involve the creation of new competencies. He suggests that a combination of the two strategic processes may be the most beneficial, even though this means that the organization never completely maximizes its efforts in the current domain.		
Ghemawat and Ricart i Costa (1993)	Static Efficiency	Dynamic Efficiency
Static efficiency concerned about the refinement of existing products, processes, and capabilities. While dynamic efficiency concerned about the development of new ones. They describe the organizational trade-off between these two strategic processes and demonstrate that organizations have a tendency to focus on only one.		
Hamel and Prahalad (1993)	Leverage	Stretch
The need to exploit existing capabilities and the search for new ones is a key strategic challenge for creating competitive advantage.		
Sanchez, Heene, and Thomas (1996)	Competence-Leveraging	Competence Building
Successful firms have the capability of maintaining a mix of competence-leveraging and competence-building activities. Competence leveraging refers to applying existing competences, whereas competence building refers to the development of new capabilities.		
Volberda, Baden-Fuller, and van den Bosch (2001)	Selective	Adaptive
“Renewal journeys” is suggested that combine various aspects of both selective and adaptive strategic actions.		

## STRUCTURE AND AMBIDEXTROUS ORGANIZATION

Research on structural antecedents has focused on creating separate organization units and the use of formal and informal coordinating mechanisms to stimulate innovation ambidexterity (Duncan, 1976; Christensen 1997; Tushman and O’Reilly, 1996; Jansen, et al., 2006). Ambidexterity can be defined as a firm’s ability to operate complex organizational designs that provide for short-term efficiency and long-term innovation (Tushman & O’Reilly, 1996).

As shown in table 2, Organization theory scholars have long discussed the challenge of using organizational features that make possible both explore as well as exploit (Tushman and O’Reilly 1997, Gibson and Birkinshaw 2004, Siggelkow and Levinthal 2003). Thompson (1967) describes the trade-off between exploitation as efficiency and exploitation as flexibility as a central “paradox of administration” (p. 15).

Scholars first put forward different structural mechanisms to cope with the competing demands facing the organization (Adler, Goldoftas, & Levine, 1999; McDonough & Leifer, 1983; Tushman & O’Reilly, 1996). Conversely, Gibson and Birkinshaw (2004) proposed that ambidexterity arises from a business unit’s organizational context.

**Table 2: Contradictory Organizational Structure Tensions**

SCHOLAR		EXPLOITATION STRUCTURE	EXPLORATION STRUCTURE
Separate Unit	Single Unit		
Burns and Stalker 1961, Duncan 1976, Ford & Ford, 1994; Lawrence & Lorsch, 1967; Lewis, 2000	Adler et al., 1999; Jansen et al., 2005a; Sheremata, 2000; Gibson & Birkinshaw, 2004	Mechanistic	Organic
Mechanistic structures rely on standardization, centralization, and hierarchy which support efficiency, whereas organic structures with their high levels of decentralization and autonomy support flexibility.			

## CULTURE AND AMBIDEXTROUS ORGANIZATION

Schein (1985) proposed that culture addresses two fundamental issues confronting organizations: the need to adapt to external changes, and the need to provide internal integration. Researchers have disagreed about how various types and cultural behaviors affect performance. Some have viewed cultivating a strong culture in which members agree and feel intensity about norms as a potential path to aligning employees with an organization’s strategic priorities (Tushman & O’Reilly, 2002). One the other hand, some have been skeptical of the notion that a strong culture boosts performance, particularly in dynamic environments.

Organizations with a strong culture can induce cognitive and behavioral uniformity among group members (Nemeth & Staw, 1989; Staw, 2009) create clear and coherent values (Chatman & Cha, 2002; Saffold, 1988) and expect that members agree with and care intensely about those values (Jackson, 1966; O’Reilly, 1989) because groups tolerate less deviation as cohesion among members intensifies (Kaplan, Brooks, Shesler, King, & Zaccaro, 2009), even if core values emphasize dissent and creativity (e.g., Flynn & Chatman, 2001; Sutton & Hargadon, 1996). Although some researchers have questioned how well strong cultures improve bottom-line performance (Saffold, 1988), a growing body of research and a host of salient examples demonstrate how organizations attain strategic advantages through strong cultures (Collins & Porras, 1994; Gordon & DiTomaso, 1992; O’Reilly & Pfeffer, 2000).

Although strong culture organizations and their associated stability generally enjoy better performance than do weaker culture organizations, strong culture organizations are not as adaptive as may be necessary for their long-term survival, because strong cultures are associated with greater adherence to routines and behavioral uniformity. So they are less effective than weaker culture firms in dynamic environments (Boisnier, A., & Chatman J. A., 2003).

Following table mentions how scholars suggested paradoxical tensions of cultural ambidexterity.

**Table 1: Contradictory Organizational Cultural Tensions**

SCHOLAR	EXPLOITATION CULTURE	EXPLORATION CULTURE
Tushman & O’Reilly, 1996; Tushman & Smith, 2002	Strong	Flexible
Organizations benefit from simultaneously managing strong, stable cultures while maintaining the flexibility and adaptability necessary to survive the ebbs and flows of turbulent environments		
Boisnier, A., & Chatman J. A., 2002; Schein, 1988; Ashby’s (1956)	Dominant Culture	Subculture
Co-existence of subcultures and a dominant culture when dealing with pivotal and peripheral values. Pivotal values are central to an organization’s functioning, while Peripheral values are desirable but are not believed by members to be essential. Competition between subcultures enhances the capacity of organizations to adapt to changing conditions. Strong culture firms might become more agile by allowing subcultures to emerge. Organizations with more variety are better equipped to respond to a complex environment. Norm variation, generated by subcultures characterized by creativity, can similarly foster innovation and adaptation to dynamic environments.		
Lewis & Boyer (2007)	Control	Flexible
Culture of flexibility promoted creativity while control helped with execution and arises from adherence to a norm that promotes adaptability. To promote adaptation, the norms that define an organization’s culture need to promote flexibility, risk taking, and experimentation within the firm.		
L. Wang & M. Rafiq	Shared Vision	Diversity
Organizational diversity and shared vision are important to achieve either simultaneous or sequential ambidexterity. Shared vision defined as the organizational values that promote organizational members play an active role in creating their own organizational culture, contrary to the traditional top-down approach (Schein, 1985; Gregory, 1983; Wilkins and Ouchi, 1983) or the strategic approach to culture, that leaders in an organization create the culture (Pettigrew, 1979). However, Diversity is defined as the extent to which a firm tolerates differences, recognizes, evaluates, and rewards individuals to think originally in a frame-breaking way, which, in turn, contribute to a rich cognitive pool of ideas, experience, and knowledge (Miller and Friesen, 1983; Popper and Lipshitz, 1998).		

## **MANAGEMENT MODEL OF AMBIDEXTROUS ORGANIZATION: HOT CUBE**

Most prior literature has focused on relevance of ambidexterity and organizational performance (Adler, Goldoftas and Levine, 1999; Ahuja and Lampert, 2001; Benner and Tushman, 2002; Gibson and Birkinshaw, 2004; He and Wong, 2004; McDonough and Leifer, 1983). In contrast, far less research has traditionally been devoted to how organizations achieve organizational ambidexterity (Adler et al., 1999; Siggelkow & Levinthal, 2003). Recently some studies indicate if a firm wants to gain these advantages and want to be ambidextrous; some organizational antecedents should support this strategy. They have started to investigate the antecedents of organizational ambidexterity and described organizational structures, behavioral contexts, and leadership processes as promoters of ambidexterity (Burgelman's, 1991; Flynn and Chatman 2001).

However a more holistic view is needed to cover previous one-dimensional studies. Our review resulted in the development of a management model that can be applied to describe, analyze, diagnose and promote ambidextrous organizations.

Ambidextrous organizational designs are composed of an interrelated set of organizational factors. None of organizational factors are dependent and all have bilateral relations. According to the principle of strategic fit or alignment, organizational performance is the consequence of fit between two or more factors such as strategy, structure, technology, culture and environment (Burns and Stalker, 1961). Strategic alignment is rooted in contingency theory, which suggests that there is no one best way of organizing (Miller et al., 1984) and must be fitted into its context in order to enhance firm performance (Bergeron et al., 2004). The contingency relationship that has received the most attention has been the one between organizational strategy and organizational structure, starting with Chandler's (1962) thesis that strategy precedes structure, and followed by a large number of studies in large and small manufacturing and service firms (Galbraith and Nathanson, 1979; Miller 1987; Freel, 2000). However there are situations where changes in structure lead to changes in strategy, even though strategy has been found to be a more important determinant of structure than structure is of strategy (Amburgey and Dacin, 1994).

An aligned organization will be operating effectively if organization cultures and structures appropriately designed in given strategic situations. It considers the degree of alignment that exists between competitive situations, strategy, culture and structure.

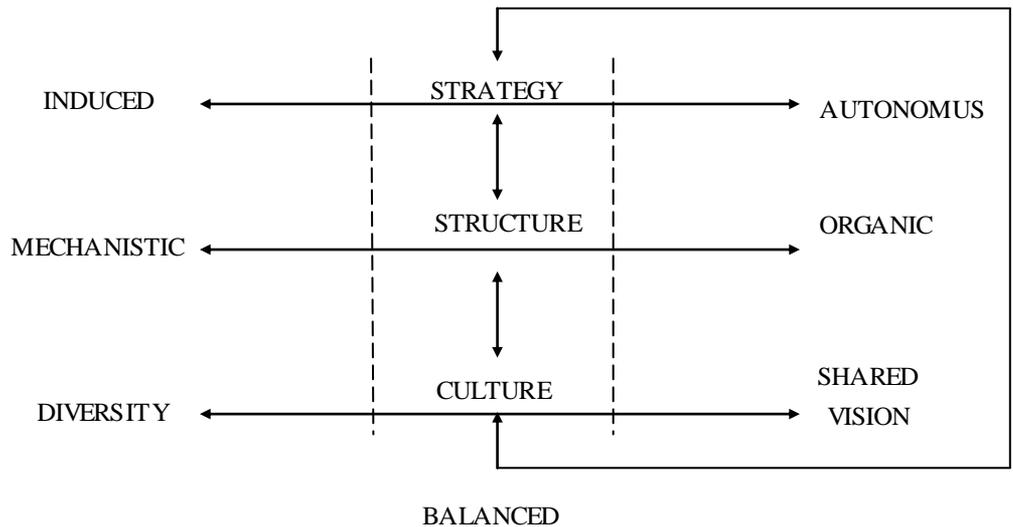
Thus it is expected that ambidextrous management model also be designed according to interaction of critical factors of environment, strategy, culture and structure that are domain of other organizational context. Changing one factor affects, sparks or hampers another's changing.

As ambidexterity seeks the balance of exploitative and explorative activities, it is expected not to be achieved without considering effective interplay of change in these three factors. Moving towards ambidextrous organization requires capable organizations of repeated change management at times of industry transitions (Tushman et al., 1996).

Culture is a socially constructed attribute of organizations which serves as the "social glue" binding organizational elements together (Cameron & Ettington, 1988; O'Reilly & Chatman, 1996; Schein, 1996). Changing an institutional culture successfully is difficult and complex, because a deeply imbedded culture tends to evolve only slowly, if at all, and changes to ingrained attitudes and beliefs are often strongly resisted. Research suggests that between 66% and 75% of organizational culture change efforts fail. However Organizations tend to develop and value set over time as they adapt and respond to challenges and changes in the environment (Schein, 1996; Sathe, 1985). Thus, complete culture changes should only be undertaken when absolutely essential and must be relevant in the context of improving overall business performance and consistent with strategic imperatives (Hooijberg & Petrock, 1993; Denison, 1989; Trice & Beyer, 1993; Cameron & Quinn, 1999; Kotter, 1995).

Yet organizational cultures do not change simultaneously with strategy changes. In addition strategy has strict relation with culture. Even strategy changes structure it can be hampered by culture and not implemented correctly.

To be ambidextrous, organizations have to reconcile internal tensions and conflicting demands in their task environments (Figure 2). Some academics identified the roles of organizational structures, cultures, and routines to manage contradictions. According to the literature several authors outline the various organizational antecedents and their paradoxical faces that can be instrumental in finding a balance between the two types of exploratory and exploitatively activities and thus our model considered following paradoxes with their strict interrelation.

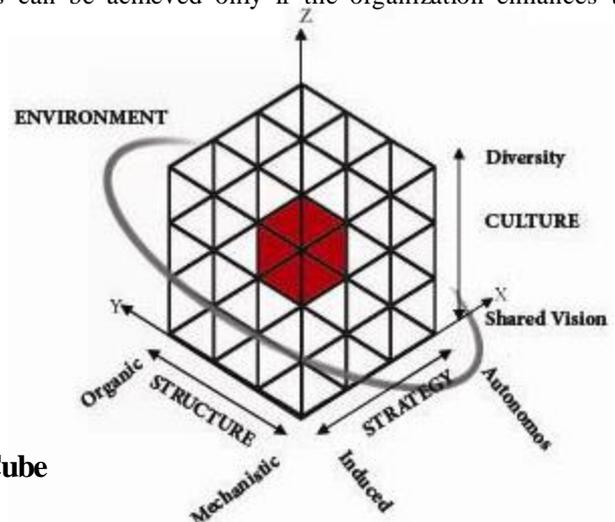


**Fig 2. Interrelation of Paradoxical Features of Ambidexterity Antecedents**

Composition of paradoxical types of strategy, structure and culture can produce various sorts of organizational with more or less efficiency or flexibility. According to figure 3, each factor assumes as an axes of X, Y and Z. The large cube is fitted these axes which each edge is divided into 3 parts: explorative, exploitative and balanced features. This forms 27 small cubes with a specific characteristic caused from structural, strategic and cultural behaviors. Each organization according to its past, present and future orientations can be more fitted to one of these 27 cubes.

Achieving balanced condition may occur in only one or two factors, yet to be an ambidextrous organization and guarantee business continuity, this model presents the inside cube, showed in red, as the “Hot Cube”, which completely has a balanced behavior as it’s strategy, structure, and culture is ambide xtrous.

The whole cubes are performing in a dynamic environment that changes can shift the organization from one cube to another. However sustainable success can be achieved only if the organization enhances their capabilities to reaches the “HOT CUBE”.



**Fig 3. Management Model of Hot Cube**

## CONCLUSION

According to the principle of strategic alignment, organizational performance is the consequence of fit between two or more factors such as strategy, structure, culture and environment (Burns and Stalker, 1961). Strategic alignment is rooted in contingency theory, which suggests that there is no one best way of organizing (Miller et al., 1984) and must be fitted into its context in order to enhance firm performance.

These three basic organizational factors; strategy, structure and culture, have strong interrelationships. An aligned organization will be operating effectively if organization cultures and structures appropriately designed in given strategic situations. The contingency relationship that has received the most attention suggests strategy precedes structure. On the other hand, Strategy has strict relation with culture, while organizational culture does not change simultaneously with strategy changes. Even strategy changes structure it can be hampered by culture and not implemented correctly.

As ambidexterity seeks the balance of exploitative and explorative activities, it is expected not to be achieved without considering effective alignment of factors such as strategy, structure and culture which is environment. Some academics identified the roles of organizational structures, cultures, and strategy to manage contradictions.

Composition of paradoxical types of strategy, structure and culture can produce various sorts of organizations with more or less efficiency or flexibility. This research proposed a management model to describe, analyze, diagnose and promote organizations toward ambidexterity and suggests that sustainable success can be achieved only if the organizations continuously balance paradoxical tensions of strategy, structure and culture concurrently.

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