



3RD-5TH SEPTEMBER

ASTON UNIVERSITY BIRMINGHAM UNITED KINGDOM

This paper is from the BAM2019 Conference Proceedings

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Application of theoretical perspective on organizational transformation, change, and development

Dynamic Capability Theory in a Saudi Arabian Context

Abstract: Saudi Arabia is experiencing a number of pressures for change, socially, economically and politically. In response to many of these pressures, the Saudi government published its Saudi Vision 2030, to challenge Saudi organizations to transform, diversify, and grow the economy. However, managing change and transformation in Saudi Arabia has not always resulted in the expected outcomes. In this paper, we lay the foundations for an exploratory research project that will examine how Saudi organizations go about identifying and selecting the capabilities that will most influence their sustained growth during periods while significant change is occurring in their business environment. Examine the relationships between organizational culture, organizational learning, and leadership capabilities with building dynamic capabilities (sensing, seizing and reconfiguration), and develop and test a conceptual framework adapted from established theory of dynamic capabilities. Analyse the relationship between long-term survivability and dynamic capabilities of Saudi Arabian companies.

Track 20: Organizational Transformation, Change, and Development

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Word Count:

Saudi Arabian Context

Background

The Kingdom of Saudi Arabia represents a perfect combination of rapidly changing economic and social factors that provides a compelling argument for introducing the principles of dynamic capabilities into their organizational strategic thinking and planning practices.

The Saudi Government's Vision 2030, released on the 25th April 2016, challenges organizations within the Kingdom to transform, diversify, and grow the economy. However, this is not the first time that the Saudi Government has issued plans to transform its economy and reduce its dependency on oil revenues. In summary, each of its five-year economic development plans dating from the 1970's, all share a similar theme of reducing the reliance of the Saudi economy on oil revenue through diversification of Saudi industry and creation of jobs for Saudis (Looney, 1985).

The Kingdom's demographics provide a strong incentive for the Saudi Government's interest in job creation and "Saudization". As the wealth of the Kingdom increased on the back of oil revenues, and it invested more in hospitals and health services, child mortality rates declined, and consequently the population grew more rapidly than at any previous period in the Kingdom's history. The demographic data provides a clear picture of a very "young" population in need of their share of the Kingdom's wealth. For example, according to the General Authority for Statistics, Kingdom of Saudi Arabia (KSA), as at the middle of 2016, 67% of the Saudi Population within KSA was under the age of 35 years. Assuming that the potential workforce is make up of those over the age of 15 and under the age of 65, then 56% of the potential workforce is under 35 years of age.

Vision 2030

The aim of "Saudi Arabia's Vision 2030" is to provide government agencies, and the private sector with a "methodology and roadmap for economic and developmental action in the Kingdom of Saudi Arabia" (Saudi Arabian Government, 2016). In essence, it provides the strategic directions, policies, goals, and objectives of the Kingdom as it enters a new phase of diversification and reduced reliance on oil revenues. The major themes of Vision 2030 include more than just "a thriving economy" (Saudi Arabian Government, 2016); they also include a "vibrant society", and an "ambitious nation".

Vision 2030 also aims to ensure transparency in business and government affairs and eliminate systemic corruption and the power of "wasata" or influence of "friends" and "classmates". The performance of government agencies will be measured against an extensive range of performance indicators and targets intended to highlight failures as well as successes (Kingdom of Saudi Arabia, 2016).

A major component of the Saudi Vision 2030 is their National Transformation Program (NTP) 2020 (Kingdom of Saudi Arabia, 2016). The Saudis consider the NTP as establishing the strategic objectives, performance indicators, and targets necessary for Saudi government agencies to fulfil the foundational needs of Vision 2030.

Some key economic activities identified within Vision 2030 include; localizing the development of renewable energy; expanding the tourism industry and increasing the number of UNESCO listed heritage sites; increasing the search and extraction of minerals, and downstream manufacturing; and, the privatization of government services where appropriate.

Culture

Hofstede's dimensions (Hofstede, 1980) are often used as a means of measuring national culture. Although Hofstede's original work did not include Saudi Arabia, a number of researchers (Alajmi, Ahmad, Al-ansi, & Gorondutse, 2017; Bjerke & Al-Meer, 1993; Tlaiss & Elamin, 2015) have used Hofstede's dimensions to research various aspects of Saudi national culture. Islam and the teachings of the Prophet Mohammed (PBUH) have a strong influence on the behaviour of Saudis (Bjerke & Al-Meer, 1993). For example, Saudis will often refer to their holy book, the Quran, for guidance on leadership, work ethics, organizational commitment, and relationships with subordinates and superiors. The highly structured hierarchical nature of typical organizations in Saudi Arabia illustrates a large Power Distance dimension (Hofstede, 1980; Shi & Wang, 2011). Saudi organizations will generally follow a command and control structure where leadership is defined by the leader's position rather than their skills, and subordinates expect to be told by their leader what they need to do (Bjerke & Al-Meer, 1993).

The collectivistic nature of Saudi society is a reflection of their adherence to Islam, which promotes commitment to "the group", whether tribe, family, or work. As a consequence, Hofstede's Individualism dimension scores low in Saudi society where relationships are of paramount importance and heavily influence decisions such as hiring, awarding of contracts and promotions (Bjerke & Al-Meer, 1993).

Underutilization of females in the Saudi workforce as represented by their high rate of unemployment, supports the view that Saudi Arabia is primarily a masculine society, scoring highly on Hofstede's Masculinity dimension (Bjerke & Al-Meer, 1993).

An objective included examining how the prevailing organizational culture of Saudi organizations contributes towards building dynamic capabilities and future proofing the organization's survivability.

Leadership

A 2008 study of leadership styles of approximately 500 leaders and more than 2000 direct reports from a cross section of industries in the Middle East, including Saudi Arabia; suggests that many organizations, are failing to realise their full organizational potential, primarily because of the constraints imposed by the prevailing command and control leadership style (Williams, 2008). The study suggests that this form of coercive leadership has created a work environment that quashes innovation, and crushes employee motivation, initiative, and willingness to accept accountability.

An objective included examining how the prevailing leadership capabilities of Saudi organizations contributes towards building dynamic capabilities and future proofing the organization's survivability.

Organizational learning

A common practice of major Saudi organizations has been to establish in-house training facilities such as schools, and academies, to develop the technical skills of Saudi employees. This practice follows the Saudi Aramco experience, which first started simply to teach English language to the Saudi labourers so they could understand the Americans working on the early drill sites in the 1930s (Aramco Services Company, 1998). In time, Saudi Aramco training programs expanded to include extensive training for apprentices and operators. The training programs proved very effective after the invasion of Kuwait in 1990, when the majority of western expatriate artisans and operators left the Kingdom, leaving the

Saudis to rely on their own resources to manage the production plants and distribution terminals (Aramco Services Company, 1998).

Training programs in Saudi organizations expanded during the 1970s to include the development of supervisors and managers, and organizations began sponsoring Saudis in undergraduate courses at universities in the United Kingdom, and the United States of America (Aramco Services Company, 1998). The past challenges for Saudi organizations have been to learn what they needed to know so they could operate their assets. Their current challenges include learning how to learn what they do not know.

An objective of this research project will include examining how the prevailing organizational learning practices of Saudi organizations contributes towards building dynamic capabilities and future proofing the organization's survivability.

Literature Review

This review confirms that interest in the dynamic capabilities construct continues to grow. However while there has been much discussion in the literature about the definitions of the dynamic capabilities construct, some Authors and Scholars, for example, Pisano (2016), argue that there are significant gaps in the empirical studies relating to how organizations apply dynamic capabilities in practice (Pisano, 2016).

Dynamic capabilities (DC) are described as an extension of the resource-based view (RBV) framework (Ambrosini & Bowman, 2009; Barreto, 2010; Eriksson, 2014; Schweizer, Rogbeer, & Michaelis, 2015), which claims that competitive advantage is obtained through distinctive bundles of resources (Garcia, Lessard, & Singh, 2014; Teece, Pisano, & Shuen, 1997). The DC notion of organizational reconfiguration being led by management contradicts the "organizational ecology" school of strategic management (Amburgey, 1996), which embraces the notion that established organizations become overwhelmed by inertia to the extent that they are not capable of evolving to meet changes in technology or the market, and become replaced by less encumbered organizations. The DC construct argues that management can overcome these negative forces for change (Teece, 2007, 2012, 2014b; Teece et al., 1997).

The dynamic capabilities construct is not without its limitations in the context of strategy and benefits from cross fertilization from other theories such as institutional theory (Gölgeci, Larimo, & Arslan, 2017). For example, the combination of the core concept of dynamic capabilities (competitive advantage in rapidly changing environments), with the core concept of institutional theory (meaning and structure to organizational behaviour), could provide a more comprehensive understanding of organizational behaviour.

Being the best at doing something is no guarantee to long-term survivability, as ultimately competitors will learn how to do it just as well if not better. The purest test of organizational effectiveness is the organization's ability to survive over time. Entrepreneurship and knowing of opportunities is only part of the process; Foss and Lyngsie (2014) and Teece (2012, 2014) argue that organizations must also know how to take advantage of these opportunities. To maximise the advantage presented by new opportunities,

organizations must be capable of making unbiased decisions that are unfettered by its history, and capable of reinventing its business model (Teece, 2007).

What are Dynamic Capabilities?

Definitions

The seminal authors defined DC as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Teece et al., 1997). However, this was countered by Eisenhardt and Martin (2000), who questioned the ability of DC to be effective in rapidly changing environments, but conceded that DC relates to the processes adopted by an organization to integrate, reconfigure, gain and release resources brought on by change.

Despite these differences, a common theme of definitions in the literature, is that DC relates to how organizations relate to, and react to change (Easterby-Smith & Prieto, 2008; Lee, Lee, & Rho, 2002; Winter, 2003; Zahra, Sapienza, & Davidsson, 2006; Zollo & Winter, 2002). According to Di Stefano, Peteraf, and Verona (2014), most definitions of DC in the literature either relate to that of Teece et al., (1997) or Eisenhardt and Martin (2000), or either don't provide an explicit definition, but reference the DC construct, or cite the definitions of other authors. These inconsistences in conceptualizing and evaluating DC have contributed to the tautology that all organizational change needs to originate from dynamic capabilities, making it difficult to separate the cause from the effect (Zahra et al., 2006); and suggesting that organizational performance and successful outcomes are directly attributable to the existence of DC or vice versa.(Prieto, Revilla, & Rodríguez-Prado, 2009).

| Sample definitions of dynamic capabilities | Author/s |
|---|-------------------------------|
| "The firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" | (Teece et al., 1997). |
| "The firm's processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match or even create market change. Dynamic capabilities thus are the organizational and strategic routines by which firms achieve new resources configurations as markets emerge, collide, split, evolve and die" | (Eisenhardt & Martin, 2000b). |
| "A dynamic capability is a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness" | (Zollo & Winter, 2002). |
| "Are those that operate to extend, modify or create ordinary capabilities" | (Winter, 2003). |
| "The abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker" | (Zahra et al., 2006). |

| "A firm's behavioural orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage". | (Wang and Ahmed 2007) |
|--|---|
| "The capacity of an organization to purposefully create, extend or modify its resource base" | (Helfat et al. 2007) cited in (Burisch & Wohlgemuth, 2016). |

Table 1 Sample definitions of dynamic capabilities

Dynamic Capabilities are not

DC is generally defined as not being the capabilities required by an organization to maintain "normal" operations to satisfy existing customers; ad hoc problem solving or creative improvisation (Teece, 2014b; Winter, 2003). Ordinary capabilities are different from DC in that they relate to doing things the right way, while DC relates to doing the right things, at the right time (Teece, 2014b).

As DC is a repeatable routinized set of processes (Zollo & Winter, 2002), and procedures, it is not an ad hoc problem solving action or spontaneous "firefighting" reaction (Ambrosini & Bowman, 2009), nor can it be considered "good fortune" (Helfat & Martin, 2015). DC is often confused in the literature as those qualities an organization requires in order to be adaptable, however this approach misses the point that DC is about how organizations make choices regarding strategic capability building, and the impact of those choices on long-term sustainability outcomes (Pisano, 2016).

Empirical Studies

Categorizing published articles on dynamic capabilities by type (conceptual or empirical) suggests that there is more research on the conceptual aspects of the construct rather than how the construct contributes (Eriksson, 2014) to the long-term survivability of organizations. Pisano (2016) argues that this is because researchers are addressing the wrong question, and that the discussion should refocus to explore the issue of how do organizations determine what capabilities they need to build, renew, or devolve, for long-term survivability (Eriksson, 2014; Pisano, 2016). Burisch and Wohlgemuth (2016) argue that the uncertain nature of changing business environments inevitably results in imperfect knowledge thereby making it difficult to apply a systematic approach.

Feiler and Teece (2014) provide a case study example of the processes used for the identification and building of dynamic capabilities in the Global Exploration Division of a major international oil company. They conclude that dynamic capabilities are inherently the result of proactive leaders who take a direct interest across all processes that build, renew, or reconfigure in order to maintain survivability within complex and changing business environments.

A case study comparison of dynamic capabilities within four publishing businesses in Scandinavia (Jantunen, Ellonen, & Johansson, 2012) found close similarities with their sensing capabilities, but wide variations with their seizing and reconfiguration capabilities. Their conclusion was that organizational idiosyncrasies prevail even within the same industry. A similar case study in a newspaper business (Karimi & Walter, 2015) concluded that the greater the application of disruptive technologies, in this case digital, the greater the influence of dynamic capabilities on organizational performance.

An empirical study of two hundred and seventeen Chinese organizations confirmed the positive relationship between dynamic capabilities and competitive advantage (Li & Liu, 2014), and concluded that the more dynamic the environment, the stronger the relationship. Control variables used in this study included the age of organization and its size. This research project will utilize these control variables to confirm a similar effect in Saudi organizations.

Knowledge & learning

Dynamic capability processes rely on the generation of knowledge from internal and external sources, the integration of knowledge or sense making of new knowledge, and the reconfiguration of knowledge (Prieto et al., 2009). Sources of knowledge should be extensive and inclusive of all employees so as to ensure a complete organizational body of knowledge that will positively influences dynamic capabilities (Nieves & Haller, 2014). Knowledge is not always acquired sequentially and is often developed through "concurrent learning" processes. For example, a case study spanning twenty years of acquisitions, joint ventures, and divestitures by Dow Chemical (Bingham, Heimeriks, Schijven, & Gates, 2015) concluded that concurrent learning is associated with changes to organizational structure. A study of two hundred and fifty-four small professional organizations in Norway (DØving & Gooderham, 2008) concluded that the contribution of knowledge and learning on dynamic capabilities is influenced by the diversity of the workforce, the internal learning processes, and the degree of collaboration with corresponding organizations.

Leadership

The cognitive skills to see the potential of opportunities, threats and risk, and the ability to derive compensating strategies, make unbiased timely decisions, and to galvanize internal resources to deal with change is the paramount managerial skills required to positively influence dynamic capabilities (Eriksson, Nummela, & Saarenketo, 2014; Helfat & Peteraf, 2015). The cognitive skills of leaders plays an important role in innovation processes and is reflected in a conceptual framework that was used in a case study of small to medium companies in the Australian construction industry (Gajendran, Brewer, Gudergan, & Sankaran, 2014). However, they concluded that the results of their study were too specific to the case study participants and could not be generalised for all cases.

How innovative leadership aids in the adoption of innovative change was analysed in a case study of two hundred and sixty-four Chinese organizations (H.-F. Lin, Su, & Higgins, 2016). Their study identified the constraints of measuring the effects of dynamic capabilities and recommended the use of longitudinal data rather than cross sectional data.

As organizational leaders, the role of Chief Executive Officers (CEOs) is critical to how well the organization adapts to changing environments (von den Driesch, da Costa, Flatten, & Brettel, 2015). The study examined survey data derived from the German Chamber of Industry and Commerce database on more than two hundred CEOs of German companies to determine the relationship between CEO attributes (age, tenure, commitment to dynamic capabilities, and support of employees) on dynamic capabilities (marketing, R&D, and production) (von den Driesch et al., 2015). Their study provided mixed results; an inverted "U" relationship between CEO age and dynamic capabilities, suggesting that younger and older CEO were less effective at managing change, and a linear positive relationship between CEO tenure and commitment to dynamic capabilities, and change (von den Driesch et al., 2015).

Culture

A quantitative analysis of survey data from two hundred and nine organizations in Israel concluded that organizational climate has a positive influence on the three dynamic capability processes of sensing, seizing, and reconfiguration (Fainshmidt & Frazier, 2017). They conclude from this study that the "social fabric" of organizations is critical for developing dynamic capabilities. They also argue that senior managers can negatively influence an organization's willingness to change by suppressing critique of the current position - "program persistence bias" (Teece, 2007).

Given the perception of a prevailing coercive managerial style, this research project will highlight whether the managerial practices in Saudi organizations encourage the participation of all employees in discussions on sensitive matters such as potential opportunities, threats, and risks that could affect the *status quo*.

Gaps in the literature

This research project aims to address the gap in the literature on empirical studies conducted in Saudi Arabia that focus on whether the principles of dynamic capabilities. Saudi Arabian context relationship with dynamic capability processes and antecedents for dynamic capability building.

Given the proclivity towards coercive managerial styles (Williams, 2008), and the strong power distance and masculinity culture (Bjerke & Al-Meer, 1993; Hofstede, 1980, 2011) in Saudi Arabian organizations, the findings from this research project on the influence of these antecedents on dynamic capabilities, should prove valuable to theorists and practitioners alike.

Conceptual framework

The origins of the conceptual framework that forms the basis of this research project comes from the dynamic capability framework presented by Teece, Pisano, and Shuen (1997) and adapted by other Authors (DØving & Gooderham, 2008; Eriksson et al., 2014; Fainshmidt & Frazier, 2017; Y. Lin & Wu, 2014; Pisano, 2016; Teece, 2007, 2012, 2014b).

In essence, this framework reflects the pathway that an organization might take as it continually evolves from its current position, that is, its current set of resources, technologies, management structures, business models, and product range, to meet the needs and expectations of its customers. The conceptual model includes the three major components of the original (Teece, 2007; Teece et al., 1997) in that it includes position, processes, and a pathway.

The difference between the conceptual framework and most frameworks relating to DC is the focus of the conceptual framework on the antecedents to the three managerial and organizational processes: sensing, seizing, and reconfiguration. The literature includes many discussions (Albort-morant, Leal-rodríguez, Fernández-rodríguez, & Ariza-montes, 2018; Peteraf, Stefano, & Verona, 2013) on defining DC and explaining their benefits, however there is very little empirical work on how these processes actually perform in practice (Pisano, 2016); or, the influence that the antecedents to these processes have, either directly or indirectly.

Long-term organizational sustainability is a dependent variable reliant on a collection of variables including durable organizational performance and the consistent achievement of organizational targets including profitability, market share, customer satisfaction, and competitive advantage.

Dynamic Capabilities in a Saudi Arabian Context – Conceptual Model

Dynamic Capability Long-term Antecedents Processes Sustainability Sensing Capabilities Analytical Systems & Individual Capacities to Learn & Sense, Filter, Shape and Calibrate Opportunities Profitability Leadership Market share capabilities Seizing Competitive Organizational Capabilities advantage learning Enterprise Structures, Procedures, Design, Business Models, and Incentives for Seizing Opportunities Customer Organizational satisfaction culture Reconfiguration Capabilities Continuous Alignment and Realignment of Specific Tangible and Intangible Assets Organizational **Control Variables** Age Size Industry sector Annual Revenue Respondent Adapted from Teece (2007. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance, Role Strategic Management Journal, 28, pg 1342

Figure 1- Conceptual Model

Enablers and Dynamic Capabilities Relationship

The readiness, willingness, and ability of organizations to build dynamic capabilities is significantly influenced (Ambrosini & Bowman, 2009) by pre-existing internal capacities, such as: leadership skills; organizational learning systems; and, organizational culture that form the building blocks of new dynamic capabilities (Eriksson, 2014; Teece, 2007); if managed appropriately (Wang, Senaratne, & Rafiq, 2015). Variations of these antecedents apply to each of the dynamic capabilities: sensing, seizing, and reconfiguration (Eriksson, 2014; Teece, 2007; Zahra et al., 2006). For example, the acquisition of knowledge through either experience or goal based learning, the retention and dissemination of accumulated corporate and individual knowledge, and the application of knowledge, all contribute to some degree to sensing, seizing, and reconfiguration DC (Zollo & Winter, 2002).

The DC framework advocated by Teece (2007) assumes the existence of individual and organisational learning capacities; and, the analytical systems and practices to identify and make sense of opportunities (Eriksson, 2014; Teece, 2007). Likewise, there is an assumption that the organization holds internally the leadership capacities that encourages a culture that accepts change, and a willingness to adjust organizational structures and business models to support the building of seizing capabilities (Eriksson, 2014; Teece, 2018). With respect to reconfiguration capabilities, leadership skills, organizational learning, organizational culture, are all important enablers to do what Teece (2007) describes as the "continuous alignment and realignment of specific tangible and intangible assets".

Leadership capabilities

Leadership capabilities in a DC context relate to those behavioural and cognitive skills, and perceptions that an organization's management (Ambrosini & Bowman, 2009; Fainshmidt & Frazier, 2017; Helfat & Peteraf, 2015) exercises "to create, extend, and modify the ways in which firms make a living" (Helfat & Martin, 2015). In essence, the existence of these internal skills form the relationship between managerial decisions, strategic change, and organizational performance (Helfat & Martin, 2015).

The entrepreneurial capability of leaders has been identified as an important antecedent of dynamic capabilities (Jantunen et al., 2012). In addition to contributing to sensing and seizing opportunities, an entrepreneurial orientation of leaders contributes, over time, to the reconfiguring of knowledge and VRIN resources (Jantunen et al., 2012; Teece, 2014a). Cognitive capabilities, an entrepreneurial orientation and cultural awareness are central to the antecedent leadership capacities of DC (Eriksson et al., 2014). Arifin (2015) argues that entrepreneurial leadership capabilities has a direct relationship on technology adoption, which positively influences organizational performance. Entrepreneurial leadership capabilities influence the procurement of resources, the recruitment of skills, and frame organizational learning and processes for capturing new knowledge (Zahra et al., 2006).

An essential aspect of effective leadership is to continually align organizational capabilities with opportunities, threats, and risks in the business environment. Sensing is the integral dynamic capability aimed at achieving the required level of alignment, but it requires innovation-conscious and entrepreneurial leadership that can effectively manage the continual scanning for opportunities that lead to the creation, modification, or replacement of resources.

Organizational Learning

The acquisition of knowledge and capabilities are the co-dependent outcomes from an organization's learning processes (Eriksson, 2014; Schwandt & Marquardt, 1999). How an organization creates knowledge, accumulates knowledge, and renews knowledge (Zollo & Winter, 2002) is a prerequisite for building dynamic capabilities (Easterby-Smith & Prieto, 2008; Eriksson, 2014). Organizational learning involves rational and focused investments of time and funds in a mix of learning activities that help define and build dynamic capabilities (Bingham et al., 2015; Zollo & Winter, 2002). Research indicates that highly deliberate goal based learning processes are more likely to satisfy the knowledge requirements of an organization (Zollo & Winter, 2002).

Capturing knowledge about new technologies and market opportunities, making sense of what it means to the organization, and disseminating it to the right people in the organization is a critical aspect of an organization's sensing capabilities (Eriksson, 2014; Felin & Powell, 2016; Teece, 2007). The organizational learning processes focus on determining sources of new knowledge (internal or external) (Bingham et al., 2015; Eriksson, 2014; Teece, 2007), deciding who should be collecting new knowledge (senior management, central entity, or anyone) (Eriksson, 2014; Felin & Powell, 2016), encouraging people to share new knowledge (Felin & Powell, 2016), and, discovering changing customer requirements and new opportunities (Felin & Powell, 2016; Teece, 2007, 2014b). Formally stated:

Organizational Culture

Organizational culture influences the expectations that people, within an organization, have on the motives, intentions, and predictable actions of others; including shared responsibility for failures as well as successes (Fainshmidt & Frazier, 2017). The existence of a stable organizational culture will foster collaborative and collegial workplace behaviours

(Colquitt, Scott, & LePine, 2007; Dirks & Ferrin, 2001) that will facilitate information sharing and lead to shared commitments, acceptance of new ideas and innovations, and foster a willingness to change (Collins & Smith, 2006; Stahl, Larsson, Kremershof, & Sitkin, 2011).

For example, organizations should be constantly scanning and exploring a wide range of internal and external sources in order to discover and make sense of new opportunities. However, an organizational culture that limits discovery to existing technologies, markets, and problem solving methods will constrain the identification of risk, threats and opportunities to the organization (Teece, 2007). An organizational culture that positively encourages sensing dynamic capabilities will encourage the exchange of ideas among employees without fear of reprisals for threatening the *status quo* (Fainshmidt & Frazier, 2017).

Dynamic Capabilities and Long-term sustainability Relationship

Dynamic capabilities features prominently as a contributor towards long-term organizational sustainability (Teece, 2014b). Although the connection between DC and organizational performance is discussed by many (Fainshmidt et al., 2016; Pezeshkan, Fainshmidt, Nair, Lance Frazier, & Markowski, 2016; Wang et al., 2015), long-term sustainability requires a more complex measurement than measurements that reflect performance at a single point in time. Long-term sustainability is dependent on the enduring ability of an organization to operate profitably (Teece, 2007; Teece et al., 1997). Because strong dynamic capabilities provide the foundations necessary for sustainable competitive advantage, and hence the maintenance of profitability, dynamic capabilities can claim to be an integral contributor towards long-term organizational sustainability (Di Stefano et al., 2014; Eriksson, 2014; Teece, 2007). Long-term organizational sustainability requires more than just the traditional contributors of business success such as ownership of tangible assets, controlling costs, maintaining quality, and optimizing inventories (Teece, 2007). Long-term organizational sustainability requires that an organization be capable of dealing with change (Di Stefano et al., 2014), because competitive advantage is an elusive notion that can easily be lost when the business environment is disrupted (Di Stefano et al., 2014; Teece, 2014b). The Zero-Profit trap (Prieto et al., 2009; Teece, 2007; Wang et al., 2015) occurs when organizations have strong capabilities with their current product range and production processes, but fail to recognize when they need to innovate to meet changing customer needs (Fang & Zou, 2009; Prieto et al., 2009; Sicotte, Drouin, & Hélène Delerue, 2014; Wu, Chen, & Jiao, 2016). The dynamic capabilities framework aids in the identification of the key variables and relationships needed to design, develop, modify, and protect assets (Teece, 2007, 2014b, 2014a; Vanpoucke, Vereecke, & Wetzels, 2014).

Research Methodology

A deductive approach was used to test the predictability of an existing theory (dynamic capabilities) within a Saudi Arabian context. The aim was to explore whether established theory and practices could be shaped to reflect actual practices or *vice versa*.

Theory – Dynamic Capabilities (Teece et al., 1997). This theory was chosen because it has been widely discussed in the literature (almost 34,000 citations) as suitable for organizations confronting significant change within their business environment. To date, there has been no empirical studies of dynamic capabilities within a Saudi Arabian context.

Model - a conceptual model was developed based on existing models and arguments developed by Teece (2007). The conceptual model incorporate the three major components of Teece's theory – current position, processes (organizational and managerial), and pathways. The conceptual framework also incorporated additional antecedents - organizational learning, organizational culture, and leadership capabilities.

Variables - previous empirical studies of dynamic capabilities provided the basis for the research variables and questions. Control variables determine if an organization's age, size and the industry in which it operates directly influences its dynamic capabilities. Participants were asked for their opinions on the current and future priorities and capabilities of Saudi organizations with respect to - sensing, seizing, and reconfiguration – processes, and for their opinions on the extent that organizational learning, organizational culture, and leadership capabilities aided or constraints building dynamic capabilities.

Data was collected using mixed methods – qualitative (semi-structured interviews) and quantitative (online survey questionnaire). Eleven interviews were conducted online. While Saunders and Townsend (2016, 850) argue that fifty is a credible estimate of interviews in a heterogeneous population; in this case, a critical purposive sampling approach was adopted in selecting the interviewees to gain as much insight as possible from the diversity and range of Saudi organizations being challenged by the Saudi Government Vision 2030. The interviewees were selected on the basis of their roles as senior strategic decision makers (Chairmen, CEOs, Vice Presidents, and Senior Managers) in a cross section of Saudi organizations ranging from very large oil and gas, petrochemical, and mining and manufacturing companies through to smaller entrepreneurial start-ups.

Each interviewee provided profile information that included the age, size, revenue and industry of their organization; their role in the organization and length of time in that role; plus how they rate the importance of current and future performance goals. The interview structure included thirteen leading questions (Table 3 below) that were used to initiate discussion; these questions were then followed by subsequent unstructured questions.

Each interview exceeded the original estimate of forty minutes; the average was one hour with some taking as much as one and a half hours. With no exceptions, all interviewees were keen to learn more about dynamic capabilities, and to contribute their opinions and descriptions of current practices. Transcriptions of the interviews were amalgamated into eighty-five pages of text.

The intersections of qualitative data, quantitative survey data, and the Researcher's reflections and observation are considered sufficient to provide a solid basis on which to analyse and discuss the phenomenon. Intersections of qualitative and quantitative is facilitated by both sets of data including profile information about the age, size, revenue and industry of their organization; the participants role in the organization and length of time in that role; plus how they rate the importance of current and future performance goals.

Quantitative data was collected from an extensive heterogeneous population via an online survey questionnaire, which was circulated using snowballing techniques to more than one thousand people who were known to either the interviewees or the Researcher. The selection criterion for survey recipients included their experience working with Saudi organizations, and their role in some form of capability building function, performance measurement, business improvement, research, marketing, or planning function. The initial response rate was very low. The cause was attributed to a general reluctance of the survey population to respond to unsolicited online surveys. The response rate improved significantly after modifications were made to include a more personal approach; for example, personalised salutation in the survey invitation

Philosophy

The argument for adopting a subjectivist research philosophy is supported by assumptions based on the Researcher's personal experiences working in Saudi Arabia. In the Saudi Arabian context the nature or existence, (Ontology), of dynamic capabilities is not well understood or is usually misinterpreted by decision makers. This could be because of the strong influence that national culture has on organizational culture, and could reflect the concentrations of powerful social groups. As a consequence, the view of reality can shift quite rapidly, particularly after senior management changes.

While dynamic capabilities have been studied for several years (Eisenhardt & Martin, 2000a; Teece et al., 1997), and several models and theories prevail (epistemology), in the context of Saudi Arabia, the term "capability" is generally assigned in its narrow's sense to human resource capabilities. More specifically, to the ability of employees to perform a well-defined task. As a consequence, there is an absence of explicit knowledge on the intangible and tangible perspective of dynamic capabilities. The different realities of the actors in the Saudi context, depending on their positioning (internal/external and vertical) and experiences, presents a rich and complex but often disjoint perspective of what is required for an organization to survive in the longer-term. For example, short-term goals such as profitability usually prevail as the predominant strategic planning consideration.

For the purposes of this research project, acceptable knowledge will include opinions, interpretative meanings of observations and narratives that reflect organizational history. Artifacts could include minutes of meetings, vision and mission statements, and annual reports. The values and beliefs of the actors are represented in multiple versions of reality. Included in these are the biases of the researcher who has extensive personal experience working within and around these organizations, and within Saudi Arabia.

Action research (reflections of experience by Researcher)

The Researcher is a "later-career" practitioner (Raelin, 2015) with many years of experience assisting Saudi organizations manage complex organizational transitions. By reflecting on his experiences, he can add to the body of knowledge and give new and pragmatic insights into how to improve the management practices of Saudi organizations. The intention was to look at these experiences positively to enable the identification of opportunities for improvement.

Strategies

The largest set of empirical studies on dynamic capabilities used a mixed methods approach for data collection (Eriksson, 2014), with two thirds of studies using qualitative methods, while less than one third used quantitative methods. Some arguments in favour of qualitative methods focus on the "intangible" nature of dynamic capabilities (Garcia et al.,

2014), while advocates of using quantitative methods argue that because dynamic capabilities centres on the routinization of processes, qualitative methods do not adequately account for measuring repeatable processes (Laaksonen & Peltoniemi, 2016).

Preliminary Findings

The interview transcripts provide a high-level narrative of how Saudi organizations identify potential new opportunities, threats and risk, make decisions on new opportunities, threats and risks, and how they manage change and reconfiguration of their asset portfolio. In this paper they have been grouped into two sets; the first set relates to the specific questions that the research project aims to answer; and, the second set relates to the intersections of the Researcher's assumptions and the interviewees' inputs.

These preliminary findings only reflect the information collected from the interviews, because at the time of writing this paper, collection of quantitative data was still proceeding.

The findings confirm the complexity of the interrelationships between all of the components of the conceptual model. For example, it is not possible to examine how Saudi organizations conduct their sensing, seizing and reconfiguration processes without considering the influence of antecedents (organizational culture, organizational learning, and leadership capabilities). Four themes dominated the discussions: the demographics of Saudi Arabia; gender; market; and, entrepreneurialism.

The high percentage (~60%) of the population of Saudi Arabia under 35 years of age is creating a groundswell of well-educated young people, all looking for opportunities to make a difference, and is clearly driving change and influencing decision makers. The push for greater inclusion of Females in the workplace is bringing economic benefits to households and the Kingdom, as well as driving significant change to organizational culture. Saudi organizations recognize that focusing almost entirely on the domestic market for their products and services is a constraint on their potential growth. However, uncertainty caused by the geopolitical instability in the Region is creating a sense of risk and reluctant investors. The large numbers of well-educated young Saudi's are turning their backs on the traditional avenues for careers, and are moving into entrepreneurial venues of their own.

Intersection of Researcher's Assumptions with Interviews

The argument for using qualitative data is that it provides useful insights that may not be obvious when relying entirely on quantitative data. This case is no exception; when intersected with the reflections on the Researcher's observations, the interviews provided themes for the quantitative analysis phase, which will come later. A problem with this approach is favouring interviewee input that aligns with the Researcher's biases, so it was necessary to consciously look for differences of opinion. Table 2 (below) provides a preliminary reflection on the intersection of the Researcher's assumptions with the interviewees' comments. This table was produced by conducting a thematic analysis using NVivo of all the interview transcriptions.

Current position

| Finding 1 - what assets (tangible and intangible) give Saudi organizations a competitive advantage over others? The answers reflect both an internal (within Saudi Arabia) and external (outside Saudi Arabia) perspective. Seven themes were identified; | | |
|--|---|--|
| Access to natural resources | The assumption was that most organizations would consider access to cheap natural resources such as land (to build on), minerals, energy and water as the key differentiators that set Saudi organizations apart from others. While Saudi organizations do recognize the competitive advantage these assets give them compared to what companies outside the Kingdom typically receive, they were not considered key. | |
| Talent | Talent was considered by all interviewees as a critical differentiator. The Kingdom of Saudi Arabia has a high percentage (~60%) of its population under 35 years of age - "who are very eager to transform and to change; they are the most important capital (asset) for Saudi Arabia, more than the oil and other natural resources (oil & gas, gold, phosphate, aluminium)." | |
| Entrepreneurs | 'there is an emerging and growing tangible entrepreneurialism' | |
| | 'more and more young people are starting their own businesses rather than seeking employment with one of the major Saudi companies' | |
| Infrastructure | 'The Saudi Government's role in developing infrastructure (railways, industrial cities and ports) has been critical for the establishment of industry in Saudi Arabia.' | |
| Capital | 'Access to capital is readily available for large Saudi companies and their mega projects; however Saudi banks remain reluctant to support young entrepreneurs.' | |
| Joint ventures | 'Joint ventures with leading international companies has proven beneficial to Saudi organizations because the joint venture partner introduces technologies, knowledge, skills and operational capabilities that did not exist in the Kingdom.' | |
| Management practices | 'Saudi management is perceived as being risk adverse and slow to make decisions' | |
| | 'a focus on profitability has resulted in management being more concerned about improving existing processes rather than looking at whether those processes are appropriate for the future.' | |

Sensing processes

| Finding 2 - how do Saudi organizations sense new opportunities, threats and risks, and how might they improve these processes? Six themes were identified; | | |
|--|--|--|
| Sources of knowledge | 'Saudi organizations lack specific structures and processes for capturing knowledge on new opportunities, threats and risks. The organization's size has a bearing on how this process is performed, and what capabilities are employed.' | |
| Opportunities | 'A fear expressed by many interviewees is the consequences of missing opportunities that could have provided beneficial outcomes.' 'Saudi organizations have historically taken an insular view of the market, and ignored regional and global opportunities.' 'Significant opportunities are perceived possible if the market was truly open, and the geopolitical situation in the region stabilised'. | |
| Threats and risks | 'Safety is a common perceived threat particularly to those companies who have hazardous operations – oil and gas refineries, and chemical plants.' 'The geopolitical risk in the region is extreme, and foremost in the minds of Saudi organizations.' | |
| Role of Saudi Government | 'Saudi organizations are focused on addressing the growth and performance targets being set by the Saudi Government.' 'The Saudi economy is currently under so much strain that organizations have had yet another requirement set by the Saudi government that they must constrain their budgets by 30%'. | |
| Organizational Learning | 'Saudis have a passionate optimism for the potential innovation and entrepreneurialism that would come from a well-educated new generation of Saudis.' | |
| Innovation. | "[Saudi organisations] still have quite a way to go in hard-core research and disruptive technologies'. '[there are] high expectations that Small Medium Enterprises (SME) entrepreneurial companies will become the innovation engine for Saudi Arabia.' | |

Decision making processes

| Finding 3 - how do Saudi organizations make decisions regarding new opportunities, threats and risks, and how might they improve these processes? Seven themes were identified; | | |
|--|---|--|
| Linkage to Saudi Vision 2030 | 'Saudi organizations go to considerable lengths to ensure that their internal decision making process delivers outcomes that align with Vision 2030.' | |
| Agility | 'Decision making processes typically lack agility, so consequently the process is slow, prone to inexplicable delays, and laborious. Agility is associated with risk adversity, but also to an element of reluctance to explicitly trust subject matter experts, and a cultural aspect of consensus among decision makers as a prerequisite to decisions.' | |
| Management structure | 'Decisions are made by people because of the importance of their position, not because of their experience and knowledge, and not always for the benefit of the organization or its shareholders.' | |
| Fact based | 'Saudi organizations have the data gathering capability, but they typically lack the analytics capabilities, and the ability to present data in a manner that executives can understand and use.' 'There is a lot of data "sitting" there and nobody is doing anything about it.' | |
| Management style | 'The 'top-down' management style found in the larger Saudi organizations needs to change to embrace reflection, empowerment, and entrepreneurialism practices.' | |
| Market | 'with a few obvious exceptions (oil & gas), Saudi organisations have focused almost entirely on supplying the domestic market.' | |
| Risk adversity | 'Saudi organizations are historically risk adverse.' 'the geopolitical situation and instability in the region is a key factor in risk management.' | |

Reconfiguration processes

| Finding 4 - how do Saudi organizations manage change, and how might they improve these processes. Six themes were identified; | | |
|---|---|--|
| History of success in managing change | 'Saudi organizations currently lack strong change management capabilities.' 'Managing change is a major issue for Saudi organizations.' | |
| | 'Many projects fail because we do not handle change management well.' | |
| | 'Unfortunately, the company is not very effective at managing change in terms of achieving beneficial outcomes.' | |
| Business process | 'Most Saudi organizations relate change management and transformation to business process improvement.' | |
| improvement | 'The major driver for change is efficiency of the current assets rather than the development of new products.' | |
| Innovation | 'There is a reticence to adopting disruptive technologies and developing new products.' | |
| | 'Saudi organizations prefer to continue using technology they are familiar with.' | |
| Top-down management of change | 'Change is normally managed from the top down, but when they get half way through the journey, they realise that they are not doing so well with less engagement with the bottom.' | |
| Organizational culture | 'The relationship between organizational culture and change is significant in a Saudi Arabian context where traditional Saudi culture assumes stability and trust in tribal leadership established from eons of surviving in a harsh environment where what worked in the past should also work in the future.' | |
| Organizational structure | 'Saudi organizations [should] create separate entities (departments) who would focus primarily on implementing change.' | |

Organizational learning

| Finding 5 – how well develo | oped are Saudi employees' abilities to learn new things and sense new opportunities, threats, and risk? Nine themes were identified; |
|-----------------------------------|--|
| Knowledge acquisition | 'the challenge for most [Saudi organizations] is how to manage that knowledge; how to store it, make sense of it, and disseminate it to decision makers.' |
| | 'Saudi organizations contain a high level of latent knowledge that typically goes underutilized.' |
| | 'Knowledge and experience from the shop floor "experts" is rarely shared with senior management, who would prefer to bring in external consultants' |
| | 'The more we engage with external sources of knowledge, the more knowledge we have about potential opportunities, threats and risks.' |
| Knowledge dissemination | 'The silo nature of many larger Saudi organizations results in limited knowledge flows across divisions within the organization, mostly knowledge flows are kept to within silos (divisions or departments). Most knowledge flows between silos and other entities is dependent on personal relationships and networks.' |
| | 'There is no structured method for knowledge transfer between entities with the organization.' |
| Knowledge management – technology | Only one of the interviewees mentioned that their organization was utilizing technology via a specific ideation engine to allow people to think to resolve these challenges (risks), resolve threats, and look for new opportunities. |
| Employee responsibility | '[They] make the right noises about moving more and more towards becoming a learning organization.' |
| for learning | 'However, in reality, it falls to the employee's personal desires to develop the skills required for the future. |
| Professional Associations | 'There is little interest in professional associations like IEEE and SPE, unless the employees are part of a large organization that pushes its employees to participate.' |
| | 'Entrepreneurs are more interested to participate in special events that relate to entrepreneurialism rather than professional associations.' |
| Organization Culture | '[Organizational learning requires the] proper organizational culture and the proper structure'. 'Innovation requires that people be given 'head room' or space so they have the opportunity to learn or to experiment. Unfortunately, this does not seem to exist.' |
| | 'in most Saudi organizations, employees are required to get on with their job, to do the job and finish the job.' |
| Future of jobs | 'Increased job competition among the new generation is a major driver towards self-development.' |
| 1 deale of Jose | 'In the future, roles that are based on process are likely to get replaced by automation. The workforce in the future will be well equipped, but different.' |
| Knowledge providers | 'Training and development is still done in a very traditional manner, people are still obsessed with attending programs and obtaining international certificates without ensuring that they have gained the right skills.' |
| | 'People who were trained overseas in reputable training institutions – in Canada, Australia, UK and the USA, particularly as part of the late King Abdullah's scholarship program, generally benefited from good quality training.' |

| Vocational Vs tertiary training | 'Two factors affect vocational training in Saudi Arabia, the level of interest in vocational training is low, and the actual quality of vocational training in Saudi Arabia is substandard.' |
|---------------------------------|--|
|---------------------------------|--|

Organizational culture

| Finding 6 – how does the c | culture of Saudi organization contribute to or constrain its capabilities to change and transform? Seven themes were identified; |
|----------------------------|--|
| Values & Beliefs | 'One on the principle reasons why organizational culture in Saudi Arabia is in a state of flux, is the Kingdom's demographics.' 'Most Saudi organization have a large percentage of their workforce under 35 years of age.' 'The values and beliefs of an organization are typically given top level management attention and promulgated down to the employees (top to bottom) in the form of publications, posters, events and announcements.' |
| Trust & Respect | 'The lack of trust, exhibited by many Saudi top management, in the opinions of others within their organizations is reflected by their almost 'addiction' like practice of engaging with external consultants.' |
| | 'Personal relationships and perceptions of individuals is very influential in decision making. Decisions are usually made at a personal level based on perceptions of the value of the contribution, and in many cases, decision makers can be pre-judgemental about proposals, especially when they hold a specific perception about the individual proposal proponent.' |
| Empowerment | 'there is a trend towards a more 'bottom-up' approach to management of change, but this is creating some challenges during this transition period because of multi-generational conflicts, with each generation having different desires and ways of doing business.' 'There is a more open culture now, technology driven, more democratic, less rigid organizational structures, and more dynamic and resilient organizations.' |
| Performance | 'A performance culture is evident in most Saudi organisations, and this attitude is embedded in Saudi Government Vision 2030.' |
| Experiential learning | 'Most Saudi organizations strive to achieve perfection. As a consequence, they typically have a low tolerance to people making mistakes.' 'It is better not to do anything than to fail doing something'. |
| Gender | 'The Saudi workforce is having a very positive effect on organizational culture, and is essentially recovering a lost opportunity for Saudi Arabia.' |
| | 'Whereas in the past, male dominated organizations exhibited high levels of complacency, the introduction of high performing Females is creating greater competition.' |
| | 'There is an economic argument that the inclusion of females in the workforce will lift a nation's GDP by as much as 5%.' |
| Tenure of employment | 'Young people do not expect to be permanent employees, but often prefer to work as a contingent employee on projects. They work on those things that they like to do, they are motivated to learn on their own discretion, and they will execute.' |

Leadership capabilities

| Finding 7 – how does how leadership aid or constrain an organization's capabilities to change and transform? Five themes were identified; | | |
|---|--|--|
| Leadership style | 'Saudis always deferred to their leaders for direction and decision-making, irrespective of the leader's capabilities, grasp of the facts, or ability to galvanize the people to a vision.' | |
| | 'There is a real sense that leadership is on an improvement curve due mainly to their hopes and aspirations for the new generation of leaders.' | |
| Leadership team | 'how we can adapt and work together is discussed at quarterly executive management meetings. We are learning how we can understand the individual issues and how can we understand the group issues so we can work together better'. | |
| Entrepreneurial leaders | 'There are many entrepreneurs in Saudi Arabia, but a scarcity of entrepreneurial leaders in large Saudi organizations who will take an opportunity all the way through to implementation'. | |
| Start-ups | 'Many entrepreneurs come from a product development or engineering background, so their focus has typically been on building products rather than leadership issues.' | |
| 'Wise Heads on Young Shoulders' | Saudi organizations look to the new generation for leaders, but there is no guarantee. Because 'leaders need to be built, people are not born leaders'. | |

Conclusions

In this paper, we developed a conceptual model based on Teece's theory of dynamic capabilities and explored its fit as a framework that Saudi organizations could utilize during their sustained growth while significant change is occurring in their business environment.

The paper explores the complex relationships between organizational culture, organizational learning, and leadership capabilities and the dynamic capabilities (sensing, seizing and reconfiguration). Several key findings demonstrate that the salient factors driving change within Saudi Arabia, include the high percentage of the population under 35 years of age, the geopolitical instability in the Region, the inclusion of Females in the workforce, and a rise in entrepreneurialism.

The paper confirms that the dynamic capabilities construct is a new way of thinking for Saudi organizations and forces reflection on the challenges, risk and opportunities moving forward. Participants commented that building dynamic capability processes would introduce clarity and clear a pathway moving forward.

Analysis of dynamic capabilities in a Saudi Arabian context will continue with analysis of the quantitative survey data.

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Table 2 Intersection of Researcher's Assumptions with Summary of Interviews

| Researcher's assumption | Theme | Participant comments |
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| i. An organization's age, size and the industry in which it operates directly influences the dynamic capabilities of Saudi organizations. | | |
| This assumption is based on the belief that more established and mature Saudi organizations will be constrained by rigid processes, vested interests of key Stakeholders, and consequently be less capable of adapting to changes within their business environment. | | |
| ii. The natural resources of Saudi Arabia gives Saudi organizations a distinct competitive advantage. The interviewees were asked for their thoughts on what assets (tangible and intangible) give Saudi | Access to natural resources | While Saudi organizations do recognize the competitive advantage these assets give them compared to what companies outside the Kingdom typically receive, they were not considered key. This could be a reflection of a culture of entitlement, and an opportunity for further research. Others described the location of Saudi Arabia and its proximity to markets (Europe, Africa, and Asia) as giving Saudi organizations a competitive advantage. |
| organizations a competitive advantage over others. The answers reflect both an internal (within Saudi Arabia) and external (outside Saudi Arabia) perspective of competitors and markets. Seven themes were identified; access to natural resources, talent, entrepreneurs, infrastructure, capital, joint ventures, and management practices. The assumption was that most organizations would consider access to cheap natural resources such as land (to build on), minerals, energy and water as the key differentiators that set Saudi organizations apart from others. | Talent | Talent was considered by all interviewees as a critical differentiator. The Kingdom of Saudi Arabia has a high percentage (~60%) of its population under 35 years of age. This young generation has benefited from the Saudi Government's programs to provide comprehensive education from kindergarten through to post graduate. Consequently the Kingdom has a plethora of well-educated young people "who are very eager to transform and to change; they are the most important capital (asset) for Saudi Arabia, more than the oil and other natural resources (oil & gas, gold, phosphate, aluminium)." While some consider the Saudi education system to provide the necessary pipeline for the development of future leaders, there are critics who argue that the "quality of the education is something that is challenged". There has been a noticeable shift in attitudes towards talent attrition in Saudi organizations. Whereas in the past, employees remained loyal to organizations who provided them with a life time job, a recent trend is for young Saudis "are jumping from one job to another, especially those related to Saudi Vision 2030." The newer organizations being created through the Saudi Government's Vision 2030 programs are |

| Researcher's assumption | Theme | Participant comments |
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| | | offering young people 'greater opportunity, greater job challenge, and sense of participation in the next phase of Saudi development.' |
| | entrepreneurialism | In Saudi Arabia today, there is an emerging and growing tangible entrepreneurialism, particularly within the private sector of the Saudi economy. Employment, and the associated status of position, is no longer the only satisfaction for graduates, more and more young people are starting their own businesses rather than seeking employment with one of the major Saudi companies. Family businesses will continue to be important, but people are starting on their own, even people who are part of family businesses are branching out on their own. |
| | capital | Access to capital is readily available for large Saudi companies and their mega projects, however Saudi banks remain reluctant to support young entrepreneurs. Saudi Government Agencies like the Small Medium Enterprise Authority is starting to provide some start-up funding, and is increasing pressure on banks to provide support. Other avenues of financial support for entrepreneurs is coming from some Saudi universities such as King Abdullah University of Science and Technology (KAUST). |
| | infrastructure | The Saudi Government's role in developing infrastructure (railways, industrial cities and ports) has been critical for the establishment of industry in Saudi Arabia. Whereas in places like the UK where industries have been established a long time, their infrastructure has evolved over time and become available to all emerging industries. The Kingdom is relatively new and the majority of their industries are located in remote areas. The Saudi Government has facilitated the building of infrastructure by bringing major stakeholders together in a collaborative consortium style structure, and structuring its Ministries so that all associated activities come "under the one umbrella". |
| | Joint ventures | Joint ventures with leading international companies has proven beneficial to Saudi organizations because the joint venture partner introduces technologies, knowledge, skills and operational capabilities that did not exist in the Kingdom. Of course having a partner is also a good risk mitigation strategy, but there are critics who feel that Saudi organizations rely too heavily, and in some cases are fixated, on 'best practices' that might have worked successfully elsewhere but not be completely transferable to a Saudi Arabian context. |
| | Management practices and leadership capabilities | The discussion on how the management practices and leadership capabilities of Saudi organizations sets them apart from others highlighted some apparent contradictions. For example, while the Saudi education system was considered by some to provide a reliable pipeline of suitable leaders, some participants note that 'better' leadership development |

| Researcher's assumption | Theme | Participant comments |
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| | | is required. This is particularly evident in remarks about the speed of decision-making, procrastination, fear of change, fear of being different from peers, and difficulties in achieving consensus. Saudi management is perceived as being risk adverse and slow to make decisions, but some attribute this to the long-term strategic nature of their decisions and their emphasis on quality. Others argue that a generic focus on profitability has resulted in management being more concerned about improving existing processes rather than looking at whether those processes are appropriate for the future. An interesting discussion was raised about how Saudi organizations care for the families of their employees, and whether this could be an effective differentiator. Traditionally Saudi organizations were 'family' businesses who took a paternal interest in all matters related to its members. However, this has become less important to organizations, and now more attention is given to the "bottom line". Less emphasis is given today to the employee's social life. |
| iii. Saudi organizations generally lack established and embedded processes for identifying new opportunities, threats and risks, and rely heavily on external consultants to manage this process. This assumption was confirmed by the interviews. The interviewees were asked for their thoughts on how Saudi organizations sense new opportunities, threats and risks, and how they might improve these processes. Six themes were identified; sources (external and internal) of knowledge, opportunities, threats and risks, role of Saudi Government, Organizational Learning, and Innovation. | Sources of knowledge | Generally, Saudi organizations lack specific structures and processes for capturing knowledge on new opportunities, threats and risks. The organization's size has a bearing on how this process is performed, and what capabilities are employed. Larger organizations rely on external consulting support to perform this process while the smaller organizations, particularly entrepreneurial start-ups, either do the task themselves or use freelance advisors. Reflecting a desire to break the nexus with external consulting support and the inherent potential conflicts of interest, there is a trend towards setting up internal organizations with permanent positions to monitor the environment. Larger Saudi organizations establish relationships with international joint venture partners, universities such as King Abdullah University of Science and Technology (KAUST) or others who are engaged in research into areas of interest that coincide with the company's. However, typically this is not innovative research but more problem solving of issues impacting current production processes. Saudi organizations encourage their senior executives to attend conferences, and to interact with their peers in similar or complimentary industries. There is a concern that dependence on this method of sensing (benchmarking) will result in Saudi organizations continuing as "consumers of policies, procedures, theories, and products that have been developed by others", or what one interviewee referred to as the 'cookie cutter' approach. There is an argument that Saudi organizations should be more proactive as developers of innovative theories and products, or at least adopt a compatibility with Saudi caveat before adopting ideas from elsewhere. |

| Researcher's assumption | Theme | Participant comments |
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| | | Compared to the traditional methods of accessing knowledge that relied on some form of physical connection with the source or repository, Saudis have embraced technology that provides instant communication and quick and easier access to a wider body of knowledge, than ever before. However, Saudi organizations typically have not developed advanced analytical systems to enable them to more effectively make sense of market data in a rapidly changing business environment. In most cases, Saudi organizations are reactive adopters of new ideas, and business intelligence. To overcome this inertia and lack of institutionalised processes, Saudi organizations need to build entrepreneurial leadership capabilities, structures and processes for continual monitoring and making sense of what is happening externally, and for disseminating information and knowledge across the entire organization – "without institutionalising the processes, it would be a challenge for them [Saudi organizations] to survive". A mix of internal and external sources of knowledge would give a more balanced outcome. Internal cross-functional teams could collaborate on identifying opportunities, threats, and risks, and external advisers could be used to validate their findings. Some Saudi companies include reflection techniques as part of their planning processes, but while they argue that they are considering for future opportunities, future challenges and mitigations, closer examinations suggests that their focus is on improvement of existing processes. |
| | Opportunities | A fear expressed by many interviewees is the consequences of missing opportunities that could have provided beneficial outcomes, and not identifying risks before they become expensive to remedy. Historically, revenues from abundant and cheap oil and gas, has resulted in an 'Age of Entitlement' culture that considered money as the solution to all issues, and as it was plentiful, there was no need to grow markets to increase their money supply. However, the demographics of Saudi have a big influence on expanding markets and industries. With obvious exceptions, Saudi organizations have historically taken an insular view of |
| | | the market, and ignored regional and global opportunities. Significant opportunities are perceived possible if the market was truly open, and the geopolitical situation in the region stabilised. There is a perceived reluctance to over-extend their markets - they would prefer to trade with one to five countries rather than twenty to fifty. Historically, the risk adverse nature of Saudi decision makers has presented challenges for them when dealing with more entrepreneurial (and therefore risky) entities. However there is a trend towards more entrepreneurialism and growth is predicted in different industries to |

| Researcher's assumption | Theme | Participant comments |
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| | | those that have historically provided the most revenue – that is, extraction industries (oil, gas, and minerals), and their associated downstream industries. Growth is expected in industries new to Saudi Arabia including IT solutions, media, tourism, and chemicals. The Saudi Government has sponsored major tourism projects, which would be expected to create jobs. Nevertheless, jobs in tourism are not as well paid as other industries and introduce their own set of cultural challenges. The fear is that tourism will generate high numbers of jobs for expatriates, in a similar manner to what happened in the construction industry. |
| | | It is evident that the high percentage of the Saudi population under 35 years of age will be the incubator of new opportunities and growth. They are not going to want to work in the existing extraction industries, they are more entrepreneurial, have a customer focus, and are keen to set up their own businesses. |
| | | Safety is a common perceived threat particularly to those companies who have hazardous operations – oil and gas refineries, and chemical plants. |
| | | The geopolitical risk in the region is extreme, and foremost in the minds of Saudi organizations, particularly those who operate close to the borders. There is a notion expressed by Saudis of encirclement by countries with different ideological beliefs that threatens trade and growth. |
| | Threats | Saudi organizations typically see threats in terms of technical issues (for example, red mud, gypsum) that impact their production processes. But underutilization of the large section of the Saudi population represented by people under 35 years of age (estimated at 60%) represents a major economic threat and a lost opportunity – 'the new generation is an issue that is not at the top of the agenda'. |
| | | There is an assumption in some Saudi organizations that the future will simply reflect the current position. Consequently, these organizations assess risk and threats, in terms of their current business environment, not the potential future business environment. |
| | | A threat to Saudi companies is that their products and services are not rare, in that other suppliers already exist globally, and there will probably be more suppliers in the future if demand continues and suppliers can make a profit. |
| | | There is a perception that Saudi organization operate in a passive reactive mode, meaning that they do not develop appropriate plans to mitigate against threats and risks – they wait for the problem to occur before reacting. For example, Saudi Arabia is part of a powerful global oil cartel that determines its revenue and profitability. In essence, |

| Researcher's assumption | Theme | Participant comments |
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| | | Saudi Arabia has almost abdicated its decision-making capabilities without reaching consensus with the other members of the cartel. |
| | | Saudi Arabia has historically conducted many mega projects in the billions of dollars. The size and nature of these projects implies many elements of risk, and reinforces the practice of obtaining validation of the decision parameters by external subject matter experts. Both internal and external subject matter experts provide the Saudi decision makers with knowledge on the potential threats and risks, together with strategies for mitigating against them. |
| | Saudi Government | Saudi organizations are focused on addressing the growth and performance targets being set by the Saudi Government. However, the terms used by the Saudi Government to express critical performance indicators and targets influences how Saudi organizations perceive potential opportunities, threats, and risks. An unintended consequence of this centralist approach is that it may or may not be appropriate for all Saudi organizations. One argument is that there should be communities of interest of Saudi organizations who are given direct access to the highest levels of the Saudi Government where the strategic decisions are being made. However, this 'top-down' controlling approach may be a direct consequence of the regional geopolitical instability. 'The Saudi economy is currently under so much strain that organizations |
| | | have had yet another requirement set by the Saudi government that they must constrain their budgets by 30%'. |
| | Learning | With no exceptions, the interviewees expressed a passionate optimism for the potential innovation and entrepreneurialism that would come from a well-educated new generation of Saudis. While talent development is seen as the way forward to in Saudi Arabia, it is a double edged sword with opportunities and risks attached. To be effective, the Saudi Education system and Saudi Government must embrace a collaborative approach with industry to ensure that graduates are suitable for roles industry, while at the same time ensuring that high potential young people are recognised as early as possible and nurtured. |
| | | Establishing education programs, schools and universities in remote areas has been a challenge for the Saudi education system. In some cases, Saudi organizations have been successful in filling this vacuum by creating their own schools and polytechnics through collaborative partnerships with universities. |
| | Innovation | There is a latent demand for 'home grown' solutions. There is a cynicism of theories and practices that originate from 'elsewhere' because the perception is that solutions |

| | Researcher's assumption | Theme | Participant comments |
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| | | | developed elsewhere are not easily transferable to Saudi Arabia where a completely different set of cultural parameters that influence their effectiveness. |
| | | | Saudi organizations 'still have quite a way to go in hard-core research and disruptive technologies'. Innovation is being encouraged by places like KAUST, and Dhahran Techno Valley, and occasionally some of the start-ups bring disruptive technologies, but pure research is not a core capability of established organizations. |
| | | | There are high expectations that Small Medium Enterprises (SME) entrepreneurial companies will become the innovation engine for Saudi Arabia. There is a strong surge of interest and capabilities in IT among young Saudi graduates and entrepreneurs. Overall, Saudi organizations are not employing artificial intelligence, data mining, and analytical engines, as prerequisites to detecting new opportunities, threats, and risks. |
| iv. | iv. Saudi organizations are risk adverse and hence slow in their decision-making. Program persistence is common in most large Saudi organizations. The interviews offered several explanations for this phenomena. | Linkage to Saudi Vision 2030 | With the Saudi Government's Vision 2030 a principal driver for change in Saudi Arabia, Saudi organizations go to considerable lengths to ensure that their internal decision making process delivers outcomes that align with Vision 2030. There is an argument that the centralised planning process should include cooperation and collaboration between Saudi organizations so as to ensure the inclusion of ideas and knowledge, 'bubbling' up from the smallest organization. |
| | | | Decision-making processes typically lack agility, so consequently the process is slow, prone to inexplicable delays, and laborious. Agility is associated with risk adversity, but also to an element of reluctance to explicitly trust subject matter experts, and a cultural aspect of consensus among decision makers as a prerequisite to decisions. |
| | | Agility | Agility includes knowledge, a willingness to take acceptable risk, and a mindset that allows reflection on whether or not the current, policies, processes and procedures are applicable in the current context. Knowledge includes new information but also includes corporate memory - the rationale, the context, and the lessons learnt from previous decisions. Acceptable risk includes not over engineering things on the premise of achieving some higher standards of quality or taking forever to complete assessments. The use of technology is improving decision making agility by speeding communication between decision makers, and providing access to a wider range of information. |
| | | Management structure | The interviewees gave mixed messages. One view is that the hierarchical authority structure does not constrain decision-making processes, but it does need to be dynamic. Another view is that the management committee is more of a governance body, not decision makers. Another view is that decisions are made by people because of the |

| Researcher's assumption | Theme | Participant comments |
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| | | importance of their position, not because of their experience and knowledge, and not always for the benefit of the organization or its shareholders. |
| | Fact based | There is an argument that technology will aid with the timely acquisition and dissemination of knowledge, and that knowledge management systems will provide decision makers with access to the knowledge they need to expedite decision-making. However, there is a counter argument that while Saudi organizations have the data gathering capability, they typically lack the analytics capabilities, and the ability to present data in a manner that executives can understand and use. |
| | | 'There is a lot of data "sitting" there and nobody is doing anything about it.' |
| | | Artificial intelligence in decision-making optimisation is an innovation that Saudi organizations should embrace, encourage, and empower as a "major" element of their decision-making processes. |
| | | The 'top-down' management style found in the larger Saudi organizations needs to change to embrace reflection, empowerment, and entrepreneurialism practices. |
| | Management style | Saudi organizations do not typically conduct reflection sessions at a senior management level on the lessons learnt from past decisions, and whether they were right or wrong. Consequently, these lessons are not added to corporate memory and available for future decisions. |
| | | There is a trend towards empowerment of employees, particularly in the newer Saudi organizations. These newer organizations are embracing the 'philosophy that employees are hired because of their capabilities and should be given enough space to execute their functions'. In these cases, once the executive level management has been taken a direction setting decision, other levels of management are empowered to execute the operational aspects. 'They [Saudi organizations] need to recruit people who have had "done it before" and give them the power to execute, and the protection'. |
| | | There is a requirement for entrepreneurial style of management within Saudi organizations, even the larger and more established ones, which would facilitate the progression of ideas from gestation to implementation. One argument put forward is that Saudi organizations should adopt innovation centric entities to develop 'bright' ideas that might completely change the strategic direction of the organization. There is a strong group of young Saudi professionals "Young Entrepreneurs", who are extremely articulate and driven, and who are starting to rise to important decision-making roles like CEOs. |

| Researcher's assumption | Theme | Participant comments |
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| | Market | Historically, with a few obvious exceptions (oil & gas), Saudi organisations have focused almost entirely on supplying the domestic market. This constraint has influenced risk taking including the adoption of innovative technologies. Being tied to the domestic market limits market scope but also exposes Saudi organizations to limitations within the Saudi financial systems. For example, delays in the payments system can have a negative impact on cash flows, particularly for single product startups. Decision makers in Saudi organizations must expand their market horizons to include a global perspective. However, the geopolitical situation and instability in the region is a key factor in risk management. |
| | Risk adversity | Saudi organizations are historically risk adverse, however a common feeling expressed in the interviews was that educated risk taking with a margin of error within tolerances should be acceptable in decisions instead of the prevailing struggle to achieve perfection. Saudi culture provides a constraint to risk taking in decision making because of a perceived association between risk taking and fear of failure. The shame of failure is very powerful and also relates to loss of status. Status is also associated with position and should the need for that position change, the incumbent is likely to experience shame for failing. Risk aversion is often the primary reason why compared to companies outside of Saudi Arabia, Saudi CEO's generally stay in their roles for a much longer periods – they do not want to risk changing companies. The new generation is becoming less inclined to be constrained by fear of failure. |
| v. Saudi organizations manage change and transformations through a 'top-down' approach. The interviews confirm that this assumption was a reflection of past practices, but highlighted the current trend of organizations managing change through a 'bottom-up' approach. | History of success in Managing change | All interviewees acknowledged that managing change and transformation has proven problematic for Saudi organizations. 'Saudi organizations currently lack strong change management capabilities.' 'Managing change is a major issue for Saudi organizations.' 'Many projects fail because we do not handle change management well.' 'Unfortunately, the company is not very effective at managing change in terms of achieving beneficial outcomes.' One interviewee rated their organizations as fair in this area but in need of improvement. Change is typically seen as an intervention triggered by a reaction to some event, rather than a proactive effort to transform. It is generally assumed that 'change will be achieved without taking the proper steps to achieve a successful change'. Saudi organizations are slow in changing and reconfiguring their assets. They are good at the acquisition and maintenance of tangible assets, such as plant and equipment, but |

| Researcher's assumption | Theme | Participant comments |
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| | | 'they do not manage their people assets well'. Historically, it takes a long time for Saudi organizations to acquire or adopt new technology or practices. They are often reluctant to adopt technology that is different from what has been used in the past. The persistence with older technologies often results in lost transformational opportunities. Leadership capabilities and the decision making processes is seen as a barrier to the acquisition of new technology. |
| | | Dealing with change management from the people perspective is the most difficult outcome for Saudi organizations to achieve, primarily because it requires a good understanding of how technology will change the lives of people (employees), and how people will use the technology. |
| | | There is a counter argument that the Saudi Government's drive for change (Saudi Vision 2030) is having a positive effect on the practices of Saudi organizations in decision-making about organizational change and redeployment of their resources (assets). Saudi organizations that have been successful in the past have become complacent and reluctant to change their practices and assets. This complacency is being replaced by an awareness of economic rationalisation and the need for quicker reactions to reality and smarter and quicker decisions. For example, Saudi organizations are becoming more courageous in laying off people and relocating people, shutting down locations – (divesting and redeployment of assets). However, this changing attitude is not about exploring new opportunities but more about adapting to new realities. |
| | Business process improvement | Most Saudi organizations relate change management and transformation to business process improvement; that is, they focus on the how rather than the what. For example, they will strive to achieve maximum returns on the original investment in their plant and equipment, but they will typically only obtain marginal improvement in their return on investment. 'The major driver for change is efficiency of the current assets rather than the development of new products.' |
| | | Larger Saudi industrial organizations will typically engage with international joint venture partners. These partnerships are one way that Saudi organizations acquire new assets, technologies, new marketing opportunities, as well as distribute risk. |
| | Innovation | There is a reticence to adopting disruptive technologies and developing new products. Reliance on the domestic market makes it challenging to try new products. If Regional and Global markets become viable, then there could be a case for changing the current asset portfolio. |

| Researcher's as | sumption | Theme | Participant comments |
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| | То | op-down management of change | A common reason given for failure with change is persistence with a 'top-down' 'command-and-control' style of change management. 'Change is normally managed from the top down, but when they get half way through the journey, they realise that they are not doing so well with less engagement with the bottom.' Preservation of the status quo, common among 'old-timer' senior executive management, is a barrier to change; it fosters an 'environment of fear' at the bottom to make suggestions that could be seen as critical of the people at the top. Saudi organizations need to adopt methods that will motivate the new generation of employees, and galvanize them to 'get the organization to change course'. 'Saudi organizations are in a state of flux, somewhere between the traditional command and control model, and moving towards a more dynamic and inclusive model. Bottom up approach is effective because the dynamism is at the bottom and more ownership of change is happening at the bottom.' |
| | | Organizational culture | The relationship between organizational culture and change is significant in a Saudi Arabian context. Traditional Saudi culture assumes stability and trust in tribal leadership established from eons of surviving in a harsh environment where what worked in the past should also work in the future. Consequently, Saudi organizations have had to look externally for change management support. However, this has presented its own set of challenges, because many Saudi managers find it difficult, culturally, to accept being told by an expat that they need to do things differently and to trust their advice. Breaking this cycle will require developing talented Saudis who can drive change themselves. These will need support from the Saudi society and Saudi leadership. This might take another five to ten years to get in place. |
| | 0 | Organizational structure | There is a suggestion that Saudi organizations create separate entities (departments) who would focus primarily on implementing change. For example, the future of jobs in Saudi organizations is also going through an evolution similar to that elsewhere. Saudi organizations are paying attention to how the adoption of machines, AI and technologies are changing the nature of work in Saudi Arabia. Some larger Saudi organizations have created separate departments to explore the future of jobs and the impact on their organization. |
| vi. The learning and d programs at Saudi focus entirely on bu | organizations K | Knowledge acquisition | Saudi organizations recognize the need to further develop their employees' abilities to acquire knowledge about new opportunities, threats and risks. They consider themselves adept at acquiring new knowledge, but the challenge for most is how to manage that knowledge; how to store it, make sense of it, and disseminate it to decision makers. For |

| Researcher's assumption | Theme | Participant comments |
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| employees to do their current jobs. The interviews confirmed this trend. | | example, they typically believe that they gain considerable advantage by exposing their employees to international expertise and external consultants, but does knowledge transfer occur from these experiences. A cynical view of this approach is that it provides decision makers with 'cover to hide behind when things go wrong'. |
| | | Capturing external knowledge is difficult because people are not reading (literature, professional journals etc.), and engaging with external entities. <i>'The more we engage with external sources of knowledge, the more knowledge we have about potential opportunities, threats and risks'</i> . In many cases the primary method of learning is via social media, friends, and the internet; which may provide quick access but raises concerns about the voracity of the knowledge they acquire. |
| | | Saudi universities, not by industry, are the main drivers of research in Saudi Arabia. University research centres have been assigned resources (assets) by the Saudi Government initiatives to expand their research programs and have been granted authority and freedom to act. Large Saudi industrial organizations may have in-house research centres, but their research is primarily focused of process improvement and efficiencies, rather than pure research. |
| | | Saudi organizations contain a high level of latent knowledge that typically goes underutilized. Capturing this knowledge becomes increasing important due to the 'retirement bulge' of experienced employees retiring, and the rush to 'put wise heads on young shoulders'. |
| | Knowledge dissemination | 'Knowledge and experience from the shop floor "experts" is rarely shared with senior management, who would prefer to bring in external consultants to 'tell them what they need to do'. The silo nature of many larger Saudi organizations results in limited knowledge flows across divisions within the organization, mostly knowledge flows are kept to within silos (divisions or departments). Most knowledge flows between silos and other entities is dependent on personal relationships and networks. There is no structured method for knowledge transfer between entities with the organization. |
| | | There are exceptions to this 'norm' where ideas are shared with peers across the organization, and employees participate in multi organizational and multi industrial committees where they share experiences and opportunities. These exceptions seem to be most prevalent in the industrial cities where employees typically live in communities shared by employees from a number of organizations. |

| Researcher's assumption | Theme | Participant comments |
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| | | Some Saudi organizations are creating cross-functional, multi-disciplined, knowledge sharing groups to 'tackle future problems, or future ideas as part of their normal work activities'. |
| | Knowledge management - technology | Only one of the interviewees mentioned that their organization was utilizing technology via a specific ideation engine to allow people to think to resolve these challenges (risks), resolve threats, and look for new opportunities. |
| | | The larger Saudi organizations 'make the right noises about moving more and more towards becoming a learning organization', they have well established in-house academies and training facilities to develop employees' skills to do their jobs. However, in reality, it falls to the employee's personal desires to develop the skills required for the future. |
| | Employee responsibility for learning | Some Saudi organizations believe that they are advantaged by the new generation of Saudis who are very much capable of learning under their own direction through self-managed learning, and quick at adopting new concepts and new ways of doing things. This is evidenced by an increase in 'employees taking the initiative to undertake short courses at Saudi and international universities'. |
| | | While larger Saudi organizations encourage the young generation of employees to study, they typically assume that the executive management have enough to undertake further studies if they are willing. Smaller Saudi organizations expect their employees to increase their education and knowledge. |
| | Professional Associations | There is little interest in professional associations like IEEE and SPE, unless the employees are part of a large organization that pushes its employees to participate. Unfortunately there is no a large involvement of the new generation in professional organizations. There is no apparent push from the universities and large organizations. However, there is an increase in volunteerism, social work and contributions. |
| | | Entrepreneurs are more interested to participate in special events that relate to entrepreneurialism rather than professional associations. |
| | Org Culture | Organizational learning requires the 'proper organizational culture and the proper structure'. For example, innovation requires that people be given 'head room' or space so they have the opportunity to learn or to experiment. Unfortunately, this does not seem to exist in most Saudi organizations, where employees are required to get on with their job, to do the job and finish the job. Ironically, there is a lot of wasted time doing the things that do not add an awful lot of value. |

| Researcher's assumption | Theme | Participant comments |
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| | | Historically, Saudi was an isolated country in which practices and habits were very much entrenched in the people in terms of their tribal structures and cultures, however today there are many young people going abroad learning new things and questioning all of the past practices, theories, and tribal relationships. |
| | Future of jobs | Increased job competition among the new generation is a major driver towards self-development. In the future, roles that are based on process are likely to get replaced by automation. The workforce in the future will be well equipped, but different. Saudi organizations have established relationships with universities to collaborate on developing the job skills necessary for moving forward. Future jobs required by the company are identified and students sent away to study for 5 years with the expectation that they will return with their specialised skills and knowledge. |
| | | Training and development is still done in a very traditional manner, people are still obsessed with attending programs and obtaining international certificates without ensuring that they have gained the right skills. |
| | Knowledge providers - quality | The training and development function in most Saudi organizations has not matured in pace with what is required to cope with the number and rate of changes occurring within the Kingdom. Many of the training providers are over-trusted, on the basis of their international name recognition. Consequently, there is an assumption that by receiving a certificate from an internationally branded training provider, the attendee will have acquired the necessary skills and competencies. The combination of an ambitious young generation, and what amounts to false statements of attainment of competencies, is creating a risky situation. |
| | | People who were trained overseas in reputable training institutions – in Canada, Australia, UK and the USA, particularly as part of the late King Abdullah's scholarship program, generally benefited from good quality training. The scholarship program and similar have resulted in many young Saudis now engaged in jobs/roles that they would not have considered in the past. |
| | Vocational Vs tertiary training | A very high percentage of Saudi high school graduates are more likely to pursue tertiary education rather than vocational training. This reflects the Saudi society's lower status for vocational roles. A challenge is the substandard quality of vocational training in Saudi Arabia. Two factors affect vocational training in Saudi Arabia, the level of interest in vocational training is low, and the actual quality of vocational training in Saudi Arabia is substandard. |

| Researcher's assumption | Theme | Participant comments |
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| vii. The organizational culture of Saudi organizations is constrained by traditional values and beliefs about roles and responsibilities. The interviews confirmed this assumption. | | One on the principle reasons why organizational culture in Saudi Arabia is in a state of flux, is the Kingdom's demographics. Currently some sixty percent of the Saudi population is under 35 years of age, and they are all looking for job opportunities. Although a large percentage of graduates are females, some seventy percent do not get job opportunities post-graduation. Most Saudi organization have a large percentage of their workforce under 35 years of age – 'the average age our company is 36'. Together these elements are an enabler for change and will positively influence organizational culture in the future Although organizational culture is a critical attribute of change, it is not typically given |
| | Values & Beliefs | enough attention by organizations. While the values and beliefs of an organization are typically given top level management attention and promulgated down to the employees (top to bottom) in the form of publications, posters, events and announcements, the attention of the top level management seems to end there, and lacks sufficient exercise and monitoring in order to ensure compliance, at all levels, and appropriateness to changing environment. |
| | | Organisational culture in each organization is unique, and can be a constraint or aid to change depending on how well it nurtures recognition of employee achievements, how well it encourages employees to take ownership of their work, and how they incentivise their employees to realise their full potential. Organizational culture also reflects the company's relationship with the market and their customers. It can significantly impact how the market perceives the quality and commitment of company and influences their decisions on doing business with the company. The organizational culture of some Saudi organizations is a constraint to change in that these organizations will align their current culture with their past success, and consequently see no reason to change. |
| | | company's relationship with the market and their customers. It can significantly impact how the market perceives the quality and commitment of company and influences their decisions on doing business with the company. The organizational culture of some Saudi organizations is a constraint to change in that these organizations will align their |
| | Trust & Respect | The lack of trust, exhibited by many Saudi top management, in the opinions of others within their organizations is reflected by their almost 'addiction' like practice of engaging with external consultants. Consequently, Saudi organizations have typically become consumers of theories, processes, and procedures, imported in a 'cookie-cutter' manner. |
| | | Trust has a significant bearing on the decision-making process. Personal relationships and perceptions of individuals is very influential in decision-making. Decisions are |

| Researcher's assumption | Theme | Participant comments |
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| | | usually made at a personal level based on perceptions of the value of the contribution, and in many cases decision makers can be pre-judgemental about proposals, especially when they hold a specific perception about the individual proposal proponent. Some Saudi organizations are experiencing a transition in trust and 'a good level of respect for people and their ideas' compared to the past. This shift in attitude is attributed in part to the downward trend in the average age of the members of Boards of Directors and Executive Management teams (particularly CEOs). The younger generation of leaders are encouraging their employees to 'build-up their self-image, be |
| | | proactive, and be proud about themselves, and their contribution to the company and their society'. |
| | | A high number of young Saudis have been educated in North America, Europe and Australia, and on their return to Saudi Arabia, they have contributed to the evolution of organizational culture. For example, there is a trend towards a more 'bottom-up' approach to management of change, but this is creating some challenges during this transition period because of multi-generational conflicts, with each generation having different desires and ways of doing business. 'So currently there is a mix of top down and bottom up that really needs to be aligned'. |
| | Empowerment | The past culture of needing meetings, and formal requests to get decisions and execute action plans is being replaced by technology supported virtual groups and meetings. Technology is replacing past silo based hierarchically structured communication channels with matrix based communications channels that speed up dissemination of information, build collaboration, improve attainment of consensus, and improve speed and quality of decision-making. 'There is a more open culture now, technology driven, more democratic, less rigid organizational structures, and more dynamic and resilient organizations.' |
| | Performance | A performance culture is evident in most Saudi organisations, and this attitude is embedded in Saudi Government Vision 2030. Achieving performance goals at all levels, organization, division, department and individual, is such a strong element of organizational culture in Saudi organizations, it also influences recruitment decisions. For example, many Saudi organizations rely entirely on the candidate's GPA as a predictor of their success in the job. |
| | Experiential learning | In line with their notions of a performance culture, most Saudi organizations strive to achieve perfection. Consequently, they typically have a low tolerance to people making mistakes. People who make mistakes are classified negatively, and the only lesson they |

| Researcher's assumption | Theme | Participant comments |
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| | | learn is that 'it is better not to do anything than to fail doing something'. But they are beginning to learn that mistakes also present a learning opportunity, not just for the individual who made the mistake, but for the entire organization. There is a shift towards acceptance of a tolerable amount of risk in their decision-making. |
| | | Fifty percent of the Saudi community are females and have, with few exceptions, in the past been excluded from working in Saudi Arabia. The Saudi Government's direction to include Mixed-Gender (Females and Males) into the Saudi workforce is having a very positive effect on organizational culture, and is essentially recovering a lost opportunity for Saudi Arabia. |
| | | Young bright females fit well into the modern Saudi workplace; they have proven they are more productive, more adaptable, more disciplined, and smarter than Mal-Unlike their Male counterparts, Females learn quicker because they spend most of time at work not distracted by non-work related matters. In essence, they add tremendous value to the workplace. |
| | Gender | Some Saudi organizations still segregate genders and many roles, particularly in industrial plants have been deemed unsuitable for Females. An unintended consequence of Mixed-Gender workplaces, albeit a positive one, is the increased pressure on Males to perform. Whereas in the past male dominated organizations exhibited high levels of complacency, the introduction of high performing Females is creating greater competition, and 'Males do not want to be left behind'. |
| | | A fear of some interviewees is that organizations might employ females just so that they can 'tick off' a government direction, they argue that opportunities for females should be created as part of an evolution process of the workforce, not as part of an enforced quota requirement. |
| | | There is an economic argument that the inclusion of females in the workforce will lift a nation's GDP by as much as 5%. For example, allowing Saudi Females to drive motor cars has given a significant boost to household discretionary spending, because families do not need to hire expat drivers. The country also benefits because there are no drivers sending their salaries home. Allowing females to drive has essentially increased female mobility and ability to work. |
| | Tenure of employment | Change to organizational culture is coming from the new young employees. Young people do not expect to be permanent employees, but often prefer to work as a contingent employee on projects. They work on those things that they like to do, they are motivated to learn on their own discretion, and they will execute. They expect to be |

| | Researcher's assumption | Theme | Participant comments |
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| | | | well paid for their knowledge and experience, and in return will move to whatever jobs interest them. They do not have the same sense of loyalty to their employer as previous Saudi generations. |
| viii. | The leadership capabilities of Saudi organizations is dictatorial and 'command and control' biased. The interviews confirmed this assumption as a past trend but | Leadership style | The leadership style of Saudi top-management have, in the past, been described as a reflection of the history of Saudi Arabia in that a collection of independent tribes were governed by tribal chiefs who had all powers and represented a centralised form of management. This traditional form of leadership carried over into the 'modern' Saudi organizations, even among highly educated Saudis, and became a constraint on adopting innovative ideas and implementing change. Based on their historical model of leadership, most Saudi organizations had a typical command and control hierarchy, and exhibited a dictatorial style of leadership as described by Hofstede's power distance dimension. Typically, Saudis always deferred to their leaders for direction and decision-making, irrespective of the leader's capabilities, grasp of the facts, or ability to galvanize the people to a vision. In this structure change and transformation depends on whether the leader at the top is a visionary or a reactionary. Among the interviewees, there is a real sense that leadership is on an improvement curve due mainly to their hopes and aspirations for the new generation of leaders. Saudi leaders are adopting greater transparency in their decision-making. They are more inclined to make fact-based decisions, are better at managing change, and have greater dialogue between leadership, middle management, and the employees on the ground performing the actual work. Empowerment of leaders to 'do their jobs' is the single biggest contributor of this change. Given a mission and direction, and without the micromanagement practices of past leaders, are now more effective at achieving change. The young generation of Saudi employees do not appreciate being directed arbitrarily by their leaders, and they will express their discontent via social media and through internal 360-degree surveys used to collect the voice of the employees. Employees are given scope, within the boundaries set by safety, and the hazardous work environment, to develop and experimen |
| | | Leadership team | Hofstede's model describes the Saudi culture as a collective society. This has historically been reflected in top-management decision making practices, and the reluctance of Saudi leaders to make decisions without knowing what their colleagues have decided. |

| Researcher's assumption | Theme | Participant comments | |
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| | | In some organizations there is today greater diversity within their leadership teams, brought on by the inclusion of the new generation of leaders. Because they are able to work together as one unit there are less constraints on transforming the organization. | |
| | | 'how we can adapt and work together is discussed at quarterly executive management meetings. We are learning how we can understand the individual issues and how can we understand the group issues so we can work together better'. | |
| | | Teece describes entrepreneurialism as a key aspect of dynamic capabilities. He defines entrepreneurial leaders who can take an idea from fruition and support it all the way through to implementation. Within Saudi organizations there is an almost even split on the issue of whether their leaders do or do not exhibit entrepreneurialism. This item has a median score of 3 in a Likert scale of 1 to 5 in the survey questionnaire. | |
| | | 'There are many entrepreneurs in Saudi Arabia, but a scarcity of entrepreneurial leaders in large Saudi organizations who will take an opportunity all the way through to implementation'. | |
| | Entrepreneurial leaders | rought on by the inclusion of the new generation of leaders. Because they are able to york together as one unit there are less constraints on transforming the organization. How we can adapt and work together is discussed at quarterly executive management meetings. We are learning how we can understand the individual issues and how can be understand the group issues so we can work together better.' The eece describes entrepreneurialism as a key aspect of dynamic capabilities. He defines interpreneurial leaders who can take an idea from fruition and support it all the way arough to implementation. Within Saudi organizations there is an almost even split on the issue of whether their leaders do or do not exhibit entrepreneurialism. This item has median score of 3 in a Likert scale of 1 to 5 in the survey questionnaire. There are many entrepreneurs in Saudi Arabia, but a scarcity of entrepreneurial evaders in large Saudi organizations who will take an opportunity all the way through to implementation.' In larger organizations, relationships play a big role in whether support for new ideas an be obtained, and in most cases support is given at 'arm's length'. It is easier to be bain support for initiatives that are perceived as having a good chance of success, but ypically it is left up to the individual depending on whether the idea is within their area of responsibility, and as long as there is minimal or no associated risk. 'Success has Many Fathers, and Failure is an Orphan'. The new young leaders are more entrepreneurial then past leaders. This is reflected in the number of new products that are being introduced to the market, new delivery modes alogistics, and new technology. These new leaders are introducing new ways of working. Many start-ups do not come from a leadership background. The founders typically worked in an organization for three to five years and started to move into leadership ositions such as a project manager or consultancy leads, so because of their limited eadership experience, they are | |
| | | The new young leaders are more entrepreneurial then past leaders. This is reflected in the number of new products that are being introduced to the market, new delivery modes – logistics, and new technology. These new leaders are introducing new ways of working. | |
| | Start upc | Many start-ups do not come from a leadership background. The founders typically worked in an organization for three to five years and started to move into leadership positions such as a project manager or consultancy leads, so because of their limited leadership experience, they are learning on the job in the start-up. | |
| | Start-ups | As they start to grow their organizations, these young entrepreneurs recognize the importance of leadership, so they start to give it more and more focus. Many entrepreneurs come from a product development or engineering background, so their focus has typically been on building products rather than leadership issues. | |

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| | 'Wise Heads on Y Shoulders' | | Saudi organizations look to the new generation for leaders, but there is no guarantee. Because 'leaders need to be built, people are not born leaders'. Requires years of experience and practice to be followed. The Saudi demographics and the rapidly aging population of current leaders emphasises the need to quickly build wise heads on young shoulders. |
| | | 'Wise Heads on Young Shoulders' | Large organization have typically created academies and in-house training departments to deliver leadership development programs, however those organizations that employ expat leaders and external consultants, should include in their contracts a requirement that they spend a certain amount of time in the academy sharing their knowledge to these young potential leaders. |
| | | | Leadership development does not need to be formal or could take place in an informal setting between managers and their subordinates, or adopt a blended approach with both formal and informal elements. This does not mean that there should be many courses; it may mean programs informally where the leadership team holds more cross-functional discussion and engagement groups with high potentials that have been identified. |
| ix. | What influence does my role have | | 'There are high expectations within the organization to perform this role'. |
| | on dynamic capabilities? We asked senior people for their thoughts | | 'My influence comes not from the position, but from developing relationships within the organization, with the presidents of joint venture partners, and with external Stakeholders.' |
| | on how their role might influence dynamic capabilities. Four themes were identified; Organizational influence, Innovation, Business improvement, and Building capabilities | Organizational influence | 'I provide Saudi organizations with a "safe journey" through their transformation of processes, practices and technology solutions. For example, leading Saudi organizations in different industries are increasingly implementing artificial intelligence (AI) into practice particularly in the self-services area.' |
| | | | 'I think that I could be more successful if I encouraged more engagement in the organization because there are very good people across the organization. We need to identify those people, make opportunities to hear them, to capture their opinion, and give them initiatives.' |
| | | | 'I would like to do more to increase this level of influence from this position through innovation or development of new technology or new ideas'. |
| | | Innovation. | 'By fostering innovation, and taking care of the young generation, and let them lead the way.' |
| | | Business improvement | 'My role is critical to business improvement in the organization.' |

| | Researcher's assumption | Theme | Participant comments |
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| | | Building capabilities | 'Be more of a coach rather than a command and control.' 'I was the main influencer of scientific research for the Youth of Saudi Arabia. Focus on maths and technology in curriculum design. A large part of it is mentorship.' 'I work towards building wise heads on young shoulders through coaching and mentoring programs. These programs provide an opportunity for late career professionals to give something back to the Society.' 'I would allow people the room to explore and do different things that organizations are not used to. I would encourage people to challenge the status quo, allow them to explore, think, and build vertical depth into their skills.' 'I would encourage people to not be afraid of failure, because I think with failure you will find at least one success or opportunities, but if you don't try you will never know when you'll succeed. Failure is the mother of a lot of learning experiences.' |
| x. | Any feedback or suggestions on dynamic capabilities? We asked senior people for their thoughts and feedback on the dynamic capabilities construct, and the project generally. Four themes were identified; Dynamic capabilities construct, New dynamic capabilities, The project, and Trust and confidence in Researcher. | Dynamic capabilities construct | 'I think that dynamic capabilities is really a new way of thinking for Saudi organizations. People typically think about current issues, not of the future, and it is really critical that organizations think of dynamic capabilities so they can resolve their challenges, risk and opportunities moving forward. Dynamic capability processes would introduce clarity and clear a pathway moving forward.' 'I think that the concept is important and very critical and being able to think about the word dynamic itself I think is important. When we talk about dynamic people think, about five years, ten years, or twenty years or it could be just months. I think that leaders need to think about what is dynamic in their operation.' |
| | | New dynamic capabilities | 'Building dynamic capabilities is a critical concept that need to be at the very core of the training and development of any organization. That is why I think that the method and the concept itself is very powerful.' 'Saudi organizations should work towards building global marketing capabilities.' 'There is a real reluctance to study risk and develop a risk profile for the organization. Risk should be accepted as a discussion point rather than elevated to the status of a calamity. Organizations need to accept that risk in measured and mitigated can be quite good.' 'There is a lack of professional societies in Saudi Arabia. After graduating from university, young professionals become disconnected from their profession, their peers and university faculty. Proactive participation in professional societies would contribute towards continual professional development.' |

| Researcher's assumption | Theme | Participant comments |
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| | The project | 'Studies like this research project that asks people to reflect on their position now and in the future will make a significant impact. These sorts of questions are excellent.' |
| | Trust and confidence in Researcher | There is a healthy cynicism of 'Western' theories and practices that have been simply 'dropped' into Saudi Arabia with little or no consideration for the Saudi culture. Relationships built over two decades of work experience in Saudi Arabia has established a high degree of trust and confidence that the Researcher's project will shape theories and practices based on what actually works in Saudi organizations. |

Table 3 Interview Leading Questions

- Q1. What capabilities (tangible and intangible assets) do you perceive would set a Saudi organization apart from others? And why?
- Q2. In your opinion, what capabilities (tangible and intangible assets) should Saudi organizations focus on building in the future?
- Q3. What is your view of how Saudi organizations currently detect new opportunities, threats, and risks?
- Q4. In your opinion, what should Saudi organizations do differently to detect new opportunities, threats, and risks?
- Q5. What are your perceptions of how Saudi organizations currently make decisions regarding new opportunities, threats, and risks?
- Q6. In your opinion, what changes should Saudi organizations make to their decision-making processes on dealing with new opportunities, threats, and risks?
- Q7. What is your perception of how Saudi organizations currently manage change and reconfiguration of their assets?
- Q8. In your opinion, what changes should Saudi organizations make to their change management and asset reconfiguration processes?
- Q9. What is your perception of how well developed employees' abilities are to learn new things and sense new opportunities, threats, and risk? Do you feel that Saudi organizations should develop these abilities further?
- Q10. What are your perceptions of how the culture of a Saudi organization contributes or constrains an organization's capabilities to change and transform? In your opinion, what should Saudi organizations do to improve on these?
- Q11. What are your perceptions on how leadership aids or constrains an organization's capabilities to change and transform? In your opinion, how would you improve on these?
- Q12. What is your perception of the level of influence positions such as yours plays in achieving strategic change and balance in an organization's portfolio of capabilities (tangible and intangible assets)? In your opinion, what would you like to do to increase the level of influence of positions such as yours?
- Q13: Do you have any other comments in relation to developing dynamic capabilities for Saudi organization?