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Change management through leadership: the mediating role of organizational culture

Abstract

Purpose – This paper examines the influence of change leadership on organizational culture and change management practices in public sector firms in the United Arab Emirates (UAE). It also examines the mediating role of organizational culture on the interactions between leadership and change management programs in the organization.

Design/methodology/approach – An empirical test of the hypotheses using confirmatory factor analysis and structural equation modelling were applied to data collected from 210 middle-management respondents of public sector organizations in the UAE.

Findings – The findings suggest that change-oriented leadership has a positive and significant direct effect on planned change (β = 0.20, p <0.01) and a positive and significant but indirect effect on planned change (β = 0.279, p <0.01) and emergent change (β = 0.262, p <0.01) change. Furthermore, hierarchical culture was found to positively and significantly impact directly on both planned (β = 0.480, p <0.001) and emergent (β = 0.245, p <0.01) change management in UAE public-sector service organizations.

Practical implications - Based on the study's findings, the role of the hierarchical culture in effecting change in UAE public-sector organizations provides new and significant insights into the research literature on organizational culture as regards change management issues and the challenges facing these organizations.

Originality/value - The study makes a significant original contribution to knowledge on the management of organizational change in UAE public-sector service organizations. It has practical implications for managers and leaders confronting organizational change management in the UAE.

Keywords – Change management, leadership, organizational culture, UAE

Classification – Research paper

1. Introduction

Change management entails a systematic approach to managing change that deals with people and resources taking into consideration certain factors. Carter (2008) believes that effecting change involves controlling or coordinating the change process in a way that enables people to adapt to change in a positive way. The use of words such as coordinating, controlling, and adapting all signify the importance of the role of a leader and the organizational culture in change management. However, to achieve desirable and intended outcomes, change must be effective and sustainable (Lanning, 2001).

Change is inevitable, but the rate of change in modern times is greater than ever. As the world progresses, change management is seen as a permanent aspect of any organization and an opportunity for organizations to improve their productivity, profits, and competitive edge (Lucey, 2008). This means that organizations are either instigating changes or changes are forced upon them (Kilpimaa, 2006). For example, to minimize waste and increase efficiency at British Airways, the entire organization was restructured, which involved reducing its workforce, explaining the reasons for the layoffs, and communicating honestly and frequently with employees to manage the change process as smoothly as possible under the leadership of a new chairperson (Troyani, 2016).

Managing organizational change is often not possible without a change leader or agent, organizational culture and the commitment of those involved in the change process, regardless of the nature of actions required (Metre, 2009). Beaman and Guy (2005) explain that bad leadership may cause the change process to go sour, while Beer and Nohria (2000) argue that lack of acceptance and unwillingness to embrace the urgency of change often hinder the change management process. Furthermore, commitment to change on the part of organizational members depends on their emotional responses to the change initiatives (Helpap and Bekmeier-Feuerhahn, 2016).

The United Arab Emirates (UAE) is a country committed to change and has undertaken several projects and initiatives to significantly improve its economy over recent decades (Mimouni and

Metcalfe, 2011). However, existing research literature aimed at understanding change management and its motivations especially in the UAE is scare, and what does exist has discussed how leadership and organizational culture play an important role (Baddah, 2016). Furthermore, Al-Waqfi and Forstenlechner (2013) found that the strategies for dealing with resistance to nationalization within organizations in the UAE are also important. However, the noticeable problem in the UAE is the lack of a powerful guiding coalition within governmental organizations (Bin Taher *et al.*, 2015).

This paper examines the role change leadership plays in change management through a mediating role of organizational culture in the UAE context. The main objectives of the study are:

1. To investigate the influence of leadership on change management in organizations.
2. To study the effect of the organizational culture on change management.
3. To study the mediating role of organizational culture on to the linkage between leadership and change management in an organization.

The next section of this paper includes a literature review. Based on the literature review, we then present our hypotheses and the proposed empirical model used to test our hypotheses. The third section describes the methods used to investigate the study's objectives, followed by the results and discussion section. Finally, the conclusion, including the implications, limitations, and theoretical contribution of the study, is presented.

2 Literature Review

2.1 Leadership and change management

Leadership plays a strategic role in managing resistance to change by using applicable elements of organizational culture to motivate employee participation in the change process (Jaskyte, 2004). Cameron *et al.* (2006) argue that change is orchestrated by the leader of the organization, or the change agents who are given the mandate to facilitate change, which is prone to significant resistance from employees. Change can be implemented in accordance with objective and external reality or contextual evidence that results from institutional pressures and routines (Quattrone and Hopper, 2001), emphasizing the facilitating role of a change leader. For change

management initiatives to be a success, the leader should act as a role model by demonstrating commitment to change and should demonstrate a positive attitude towards the strategic initiatives being taken to facilitate change (Abrell-Vogel and Rowold, 2014).

The motivation of the change leader is important to the employees in the workplace and to the organizational culture (Gilley *et al.*, 2009). Change leadership can influence acceptance of change and reduce employee resistance to it, leading to collaboration between leaders and employees so that they can construct change together (Griffith-Cooper and King, 2007). However, such collaboration depends on the orientation of the change leadership and the abilities of the change leader. Northouse (2013) emphasizes that change leaders exhibit two general behaviours: a motivated leader exhibits task behaviours that facilitate goal accomplishment, and also adopts behaviours that help employees to feel more relaxed and comfortable about the changes being made (Northouse, 2013). In their research, Hamstra *et al.* (2011) discovered that in organizations where goals are achieved, leaders adopted both transactional and transformational styles to ensure productivity and effective change management. Consequently, the leaders are perceived as both supporters of organizational change and as change agents (Nazim *et al.*, 2014), which positively impact and encourage change-oriented behaviours in employees (Li *et al.*, 2016).

According to Nazim *et al.* (2014), a change agent is someone who introduces a concept, idea, or innovation that leads to an appropriate environment for change, facilitates the implementation of change, and evaluates the impact of change. This demonstrates that change agents (leaders) have specific duties or tasks to perform when implementing change, thus placing them at the helm of change management. The tasks of change agents, according to Luscher and Lewis (2008), mean that they are heavily involved in the change process, and it is also important that they interact with employees at different levels in the organization and at different times. For instance, Hudescu and Ilies (2011) explained that leaders need to communicate a broader understanding of the basic principles surrounding the change process; otherwise, lack of appreciation by employees of the issues involved in change often poses a barrier to change management. The ability to maintain equilibrium between communication of the basics of change and the change process may be daunting. Nonetheless, change is a process that helps leaders, as change agents,

to establish relationships with employees that enable and facilitate the change process, thereby ensuring that the change is effectively managed (Nazim *et al*. 2014).

For change agents to be effective, they must develop certain skills, behaviours, and competencies (Luscher and Lewis, 2008). Some of the skills identified in the literature that change agents need include vision, self-motivation, and the ability to solve problems, negotiate, mediate, take action when needed, communicate, and provide accurate information (Luscher and Lewis, 2008; Nazim *et al.*, 2014). Other literature identifies skills such as human, technical and conceptual skills (Northouse, 2013), and Gilley *et al*. (2009) emphasize that it is more important for change leaders to utilize their abilities and skills to ensure that change is achieved. In discussing leaders as change agents, this research provides a strong argument for an organizational culture type that enables change agents to utilize their skills in the most appropriate manner to facilitate change in a positive way. Gill (2010) affirms that the successful introduction of change and sustained change management requires effective leadership. Miller (2010), however, clarifies that the beliefs of the leadership are important to the change management process, and, as such, strong leadership is central to the success of major change. Higgs and Rowland (2007) identify the leadership behaviours that are central to successful change management. However, the existing literature falls short in explaining how leadership influences organizational culture, which, in turn, impacts change management. Thus, the following can be inferred from the literature on leadership and change management:

> Hypothesis I *Change leadership will positively and significantly influence change management in an organization.*

2.2 Organizational culture and change management

Culture is broad in the extent to which it covers all aspects of internal and external relationships; it is also deep in the extent to which it guides the actions of individuals without them being aware of its influence (Martin and Siehl, 1983). According to Zhu (2000), culture has a life of its own, changing due to interactions and in response to different paces and to varied extents. Thus, change management concepts and their application require input from different areas and levels within an organization, or from individuals, groups, or organizational systems and culture (Hudescu and Ilies, 2011). Andrews *et al*. (2008) also explain the notion that change often needs to be understood and redefined by individuals or contextualized by contingencies, conflicting

interests, and the ideologies of groups within an organization. This is because organizational culture is grounded in a rich set of values, assumptions, beliefs, and behaviours, and how they collectively influence change, employees, and performance (Carlström and Ekman, 2012). It can, then, be inferred that the stronger an organizational culture, the greater its impact on the attitudes and behaviours exhibited by leaders and employees in the organization (Ostroff *et al.* 2003). While this establishes a relationship between organizational culture and change management, it also indicates that organizational change management is a process of reconfiguring components and of making alterations to structures and culture, people, and/or technology within an organization in order to increase efficiency and effectiveness (Bendor-Samuel, 2004).

Cameron and Quinn (1999) use four clusters (i.e. clan, adhocracy, hierarchy, and market) to explain organizational culture. The market culture is not relevant to the focus of this research, because the primary belief of the market culture is to meet the expectations of stakeholders, and not to preserve the values of the organization (Hartnell *et al.* 2011). Clan organizational culture, on the other hand, employs collaboration and trust, as well as cohesion, participation, communication, and empowerment, as the means change leaders can adopt for change management (Carlström and Ekman, 2012). According to St-Amour (2001), using collaboration and trust means that morale will be high and people will be committed, leading to their development. Conversely, adhocracy adopts creativity to direct, and adaptivity and agility as the means of engaging, to achieve innovative and cutting-edge output when embarking on change (Hartnell *et al.* 2011). While the clan culture uses collaboration, the adhocracy culture adopts creativity.

A hierarchy culture differs in that it uses control to direct process; it also controls capacity and ensures consistency to achieve efficient and timely change (Carlström and Ekman, 2012). Hierarchy focuses on smooth functioning as the end result, while controlling all means to achieve the purpose of change (Hartnell *et al.* 2011). Thus, the focus of adhocracy is external and differentiation, but that of clan and hierarchy is internal and integration (Cameron and Quinn, 1999). Jaskyte (2004) argued that the stronger the organizational culture, the more difficult it is to effect change.

Since the world is constantly changing, organizations must grasp and possess culture that is receptive to change (Sarros *et al.* 2005). Regardless of the importance of change, LaPine (2005)

argues that it is challenging to instil an organizational culture that is receptive to change. Hence, Luu and Rowley (2016) emphasize the need for a process that understands the significance of organizational culture, and that maintains, sustains, and also facilitates the change process. This makes organizational culture an integral part of change management, supporting the next hypothesis:

> Hypothesis II *The three dimensions of organizational culture, clan, adhocracy, and hierarchy, will positively and significantly enhance change management.*

2.3 The mediating role of organizational culture

Change management is a systematic approach that includes the application of knowledge, resources, and tools that can be used to leverage the benefits of change. It is also viewed that the systematic approach will better manage the change process with the intention of positively improving performance (Metre, 2009). However, it has also been suggested that a systematic approach may leave a change leader with limited time and resources to assess the change process and to simultaneously implement change as planned (Hudescu and Ilies, 2011). Burnes (2004) explains that organizational changes need to be approached appropriately; otherwise, planned and emergent changes may be competing rather than complementary. Although contestable, his research found that organizations should identify the approach best suited to both types of changes, especially the change they desire based on organizational context. This makes the change process something in which leadership and change management play a vital role in achieving successful outcomes (Al-Yahya, 2009). Ulrich and Brockbank (2005) argue that internal environments such as management procedures, policies, systems, styles, and attitudes of leaders and employees also influence change management, thus making change leaders and organizational culture an integral part of change management. However, the ability to maintain the positive aspects of a strong culture requires a change approach that is subjective and subsequently influenced by organizational culture and change leadership (Erdogan *et al.* 2006).

Change leadership in this sense presents leadership as possessing competences such as knowledge, skills, abilities, and other attributes necessary to perform the role required for change (Kin, *et al.* 2014). The argument of Kin et al. (2014) corresponds with that of Griffith-Cooper and King (2007), who state that change leadership refers to a set of principles, techniques, or

activities applied to the human aspects of change. Nussbaumer and Merkley (2010) emphasize that it is the ability to influence intrinsic acceptance while reducing resistance that makes change leadership important to the change process. However, Farkas (2013) argues that organizational behaviour, which informs organizational culture, might not be easily altered, except through the culture of assessment. This indicate that organizational culture has layers, and the role of change leadership is to strive to change attitudes and behaviours towards a culture of assessment that helps to internalize the value of change, thereby altering organizational structure to actually achieve change (Farkas, 2013).

Change initiatives that do not consider organizational culture often lead to negative outcomes (Choi, 2011). Lakos and Phipps (2004) argue that organizational culture is often difficult to change because it is fairly embedded. Hence, the need to assess change leadership behaviours (Herold *et al.* 2007) and the organizational culture when considering organizational changes (Choi, 2011). Both change leadership and organizational culture are major determinants of the success or failure of any change initiative and change management. The purpose of change management is to increase awareness and motivate people to accept and embrace change, with change leadership assessing and utilizing organizational culture to ensure the success of change management (Bendor-Samuel, 2004). Druskat and Pescosolido (2006) argue that relationships exist between the commitment to change, change management, and the emergent leader. However, Duck (1993) discusses the mediating role of organizational culture on leadership and change management empowerment as a true opportunity for employees throughout the company to create the future together, and Elsmore (2001) argues that organizational culture is key to organizational change and change management success. Thus, it is necessary for change leaders to approach organizational change as a comprehensive process including subsystems that influence the success of change in order to prevent resistance thereto (St-Amour, 2001). Hence, the following hypothesis is proposed:

Hypothesis III *Organizational culture can have a mediating effect on the relationship between leadership and change management in an organization.*

2.4 The proposed research model:

Based on the literature review, such as the works of Gill (2010), Miller (2010), Higgs and Rowland (2007), Smollan and Sayers (2009), Allen (2003), Branson (2008), Druskat and

Pescosolido (2006), Duck (1993), and Elsmore (2001), and the developed hypotheses, we propose the following research model to be examined in this study. The study and explanations by Farkas (2013), Lakos and Phipps (2004), Herold et al. (2007), Hartnell et al. (2011), Cameron and Quinn (1999), Jaskyte (2004) Cameron and Quinn (1999), and Carlström and Ekman (2012), to mention a few, all informed the research model. The proposed research depicts that the change leadership impact change management in an organization, and that, at the same time, the relationship between change leadership and change management gets mediated by organizational culture.

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Figure 1 shows that there are links and connections between organizational culture, change leadership, and change management, as explained in the previous sections that led to the hypotheses. Within the explanations proffered, change management as observed maybe planned in which the organization commits to, or emergent based on different influencing factors to be further identified and discussed in this paper.

3. Methods

3.1 Participants

A total of eight public-sector service organizations involved in regulating economic and commercial affairs in the UAE were surveyed for the purpose of this study. A standard questionnaire was distributed to 440 employees who volunteered to participate, and 238 questionnaires were returned. Of these, 210 were included in the data analysis, as 28 of the questionnaires received from the respondents were found to be incomplete. Hence, this study had a response rate of 47.73%. The questionnaires were translated from English into Arabic, and then translated back into English by a different set of professional translators. This ensured that both the English and Arabic versions of the questionnaires conveyed the same meaning to the respondents.

Insert Table 1 about here

The study was conducted on a sample size of 210 employees from the middle management of eight public-sector organizations in the UAE. As depicted in Table 1, the sample consisted of 46.7% male and 53.3% female employees, wherein 54.3% had undergraduate, 33.8% had graduate, and 11.9% had postgraduate levels of education. Furthermore, 63.8% of the sample was at least 30 or more years old, and 86.2% had worked in the organizations under study for a minimum 2 years to over 7 years.

3.2 Measures used in the study

3.2a Organizational culture instrument. The organizational culture instrument (OCI) was developed by the researchers from the research findings of Cameron and Quinn (2006) and Tseng (2009). The researchers developed six items to each of the three dimensions, clan, hierarchy, and adhocracy, of organizational culture, giving a total of 18 items to be rated on a 5-point Likert scale. The OCI was then given to Twenty experts, 10 from academia and 10 from the industry, who were working in the UAE were then instructed to rate each item on a 10-point rating scale, ranging from "not suitable" to "highly suitable". The rule of thumb to select items to be included in the final scale was that those items that received a minimum of 70% agreement among the experts in the field were retained, and the rest were deleted from the final instrument on organizational culture. Consequently, only four items related to each of the three dimensions of organizational culture – clan, adhocracy and hierarchical – were considered valid for the purpose of the study and included in the questionnaire, making a total of 12 items. Examples of items were: "the company provides a very friendly place to share …" and "my organization's long-term emphasis is on …" The Cronbach alpha coefficients, as calculated and depicted in Table 2 for clan culture, hierarchical culture, and adhocracy culture, were 0.860, 0.831, and 0.790 respectively.

3.2b Change leadership questionnaire. The researchers used a change leadership questionnaire developed by Herold *et al*, (2007). It has seven items to be rated by the respondents on the 5-point Likert scale. The sample items to be rated by the respondents included, for example, "my leader developed clear vision…" and "my leader empowers people for …". The Cronbach alpha coefficient calculated for the change leadership questionnaire was found to be 0.950.

3.2c Change management instrument. The researchers used a change management questionnaire developed by Farrell (2000). It has 11 items in total: six items were for planned change and the other five were for emergent change. Items were rated by the respondents on the 5-point Likert scale. The sample items rated by the respondents for planned and emergent change in the organization included, for example: "any kind of change in my organization emanates from senior management …", "any kind of change in my organization happen through encouraging employees to understand and adapt to …", and "any kind of change in my organization occurs through continually learning about the environment". The Cronbach alpha coefficient calculated for planned change was 0.758, while for emergent change it was 0.780.

4. Results and Discussion

The researchers performed confirmatory factor analysis (CFA) and structural equation modelling (SEM) to analyse the data and to test the three hypotheses. Once the researchers were satisfied with all the parameters of goodness of fit indices for the measurement scales of change leadership, clan culture, hierarchical culture, adhocracy culture, and change management, the three hypotheses were tested through SEM. The CFA and the resulting fit indices of the measurement models are presented below, followed by findings from the structural fit model.

4.1 Findings from descriptive and correlational analysis

The results, as depicted in Table 2, suggest that the Cronbach alpha coefficients calculated for change leadership, organizational culture (clan, adhocracy, and hierarchy), and change management (planned and emergent change) were found to range from 0.758 to 0.950. Furthermore, the results also indicate that the sample under study has a favourable perception toward leadership, organizational culture, and change management practices in the workplace. Finally, the correlation coefficients for the variables under study, change leadership, the three

types of organizational culture, and the two types of change management practices, were found to be positive and significant at a 0.01 level of significance. These findings support findings from other studies (Andrews *et al.*, 2008; Kilpmiaa, 2006), wherein organizational culture and leadership in change management were found to play a significant role.

Insert Table 2 about here

4.2 *Findings from confirmatory factor analysis*

The maximum likelihood estimation (MLE) method was selected to carry out the CFA to test whether the data fit a hypothesized measurement model (Jöreskog and Sörbom, 1982). The model fit criteria commonly used are chi-square ($\chi 2$), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), and the root-mean-square residual index (RMR) (Jöreskog and Sörbom, 1993). $\chi 2$ is sensitive to sample size, nearly always rejects the model when large samples are used (Bentler and Bonnet, 1980; Jöreskog and Sörbom, 1993), and may not discriminate between models with a good fit and those with a poor fit when the sample size is small (Kenny and McCoach, 2003). Consequently, the Wheaton *et al.* (1977) relative/normed chi-square ($\chi 2$/df), which minimizes the impact of sample size, became relevant. However, consensus exists on the acceptable ratio for these statistics and it ranges from as high as 5.0 (Wheaton *et al.* 1977) to as low as 2.0 (Tabachnick and Fidell, 2007). The relative $\chi 2$ ($\chi 2$ /df) must be between 2 and 5 in order to achieve acceptable model fit. The TLI, CFI, GFI, and AGFI values should be in the range of 0 to 1, with values close to 1 indicating a good fit, while the RMSEA value should fall below 0.08 to indicate an acceptable fit to the data (Schumacker and Lomax, 2004).

CFA for change leadership, organizational culture, and change management. The measurement scale for *change leadership* was composed of seven items. All the items were treated as one factor and entered into the CFA process. All the factor loadings were found to be significant (*p* <0.001). The measurement scale for the three parameters of *organizational culture*, clan, adhocracy, and hierarchy, was composed of 12 items, which were treated as one factor and entered into the CFA process. All the factor loadings were found to be significant (*p* <0.001)

except for item number 3 of the clan culture and item number 1 of the adhocracy culture. These aforementioned two items were deleted and a fresh CFA was performed on three items of clan culture, three items of adhocracy culture, and four items of hierarchical culture, wherein all the factor loadings were found to be significant (p <0.001). Finally, the measurement scale for the two parameters of *change management*, planned change and emergent change, was comprised of six and five items, respectively, giving a total of 11 items, which were treated as one factor and entered into the CFA process. All the factor loadings were found to be significant (p<0.001) except for item numbers 3 and 4 of planned change and item number 4 of emergent change. These aforementioned items were deleted and a fresh CFA was performed on the remaining four items of planned change and four items of emergent change, wherein all the factor loadings were found to be significant (p<0.001). The absolute goodness-of-fit measures for the measurement model of change leadership, organizational culture, and change management are depicted in Figures 2, 3, and 4, respectively.

Insert Figure 2, 3 & 4 about here

Table 3 depicts the test results for change leadership, organizational culture, and change management variables. The test results for change leadership are: $\chi2/df$ = 3.66, GFI = 0.91, AGFI = 0.925, NFI = 0.952, CFI = 0.966, TLI = 0.949, and RMSEA = 0.082. Similarly, the test results for organizational culture are: $\chi2/df$ = 3.48, GFI = 0.932, AGFI = 0.912, NFI = 0.948, CFI = 0.962, TLI = 0.937, and RMSEA = 0.079. Finally, the test results for change management are: $\chi2/df$ = 3.52, GFI = 0.907, AGFI = 0.92, NFI = 0.902, CFI = 0.921, TLI = 0.90, and RMSEA = 0.080. These indices confirm the hypotheses and sample fit (Kline, 2011), and they satisfy the reference values of the $\chi2/df$ (Tabachnick and Fidell, 2007; Wheaton *et al*. 1977) the TLI, CFI, GFI, NFI, and AGFI values, which should be > 0.90, and the RMSEA value, which should be ≤ 0.08, indicating a good fit (Schumacker and Lomax, 2004).

Insert Table 3 about here

4.3 *Findings from structural equation model*

4.3a *Standardized total effect on change management.* The results in Table 4 indicate that the standardized total (direct and indirect) effect of change leadership on hierarchical culture, adhocracy culture, and clan culture is significantly positive (β = 0.555, *p* <0.001; β = 0.50, *p* <0.001, and β = 0.489, *p* <0.001). Hence, hypotheses I as derived from the literature review and proposed above, is supported and accepted. Similarly, the standardized total (direct and indirect) effect of change leadership on emergent change and planned change are significantly positive (β = 0.458, *p* <0.001; β = 0.364, *p* <0.001).

Insert Table 4 about here

Furthermore, the standardized total (direct and indirect) effect of hierarchical culture on emergent change (β = 0.245, *p* <0.01) and planned change (β = 0.480, *p* <0.001) is positive and significant. These findings draw support from Quinn (1999), who found that hierarchical culture enables change leadership to adopt control, use control processes, apply consistency, and use tools to engage staff and manage change more effectively than the other organizational culture dimensions. However, the standardized total (direct and indirect) effect of adhocracy culture on emergent and planned change (β = 0.100 and β = 0.03) and clan culture on emergent and planned change (β = 0.141 and β = 0.04) are positive but not significant. Therefore, the positive impact of hierarchical culture on emergent and planned change indicates that change management requires control and consistency, with change leadership functioning better in a hierarchical organizational culture. While Smollan and Sayers (2009), Allen (2003), and Branson (2008) all acknowledge the significant role of organizational culture in change management, it can be deduced from this result that hierarchical culture plays the most significant role in ensuring that change leadership effectively facilitates change management, especially in the UAE environment.

4.3b *Standardized direct effects on change management.* The results depicted in Table 5, suggest that the standardized direct (unmediated) effect of change leadership on the three dimensions of organizational culture, hierarchy, adhocracy, and clan (β = 0.555, *p* <0.001; β = 0.550, *p* <0.001; and β = 0.489, *p* <0.001), is significant and positive. The standardized direct (unmediated) effect

of change leadership on emergent change (β = 0.200, p <0.01) is positive and significant; however, on planned change (β = 0.090), the effect is positive and non-significant. This suggests that emergent change in organizations in the UAE is significantly influenced by organizational leadership. This study's findings find support in other similar studies, e.g. Cameron *et al.* (2006), Jaskyte (2004), Gilley *et al.* (2009), Griffith-Cooper and King (2007), and Li *et al.* (2016). Thus, Hypothesis I is partially accepted, as the impact of change leadership was found to be significant on emergent change, but not on planned change. The study's findings accord with Gill (2010), Miller (2010), and Higgs and Rowland (2007), who all found leadership to play an important role in successful change management in the organization. The standardized direct (unmediated) effect of hierarchical culture on emergent and planned changes (β = 0.245, p <0.01; and β = 0.480, p <0.001) is positive and significant; however, the standardized direct (unmediated) effect of adhocracy culture (β = 0.004 and β = 0.141) and clan culture (β = 0.100 and β = 0.030) on emergent and planned changes, respectively, is positive but non-significant. These findings find support in past research, such as Ostroff *et al.* (2003) and Carlström and Ekman (2012). Hierarchical culture was found to significantly and positively impact change management. This study focused on smooth functioning as the end result, while controlling all means to achieve the purpose of change, as suggested by Hartnell *et al.* (2011). Hence, it can be said that the Hypothesis II is partially accepted as only the hierarchical culture was found to have a significant positive impact on emergent and planned change management in the organization.

Insert Table 5 about here

4.3c *Standardized indirect effects on change management.* The results presented in Table 6 show that the standardized indirect (mediated) effect of change leadership on emergent change (β = 0.262, p <0.001) and planned change (β = 0.279, p <0.001) is positive and significant. This is in addition to any direct (unmediated) effect that change leadership may have on emergent or planned change. Therefore, the results indicate that organizational culture mediates the linkages between change leadership and both planned and emergent change in the organization. These results find support in past research, such as Al-Yahya (2009), Bendor-Samuel (2004), Herold *et al.* (2007), and Ulrich and Brockbank (2005). Thus, this study's findings partially support Hypothesis III as only the hierarchical culture was found to significantly positively mediate the

linkages between leadership and both planned and emergent organizational change in the context of UAE public-sector service organizations.

Insert Table 6 and Figure 5 about here
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5. Conclusion

Based on the findings of the study, it can be concluded that change leadership positively and significantly impacts the three dimensions of organizational culture, clan, adhocracy, and hierarchy, as well as both dimensions of change management (emergent and planned change) in public sector organizations in the UAE. The findings also indicate that hierarchical organizational culture, in particular, plays a major positive role in emergent and planned change in UAE organizations. It was also found that the hierarchical, rather than the clan or the adhocracy, organizational culture positively and significantly influences change management in the organizations studied. However, the study did not find any significant impact of the clan culture and the adhocracy culture on either emergent or planned change management in the organizations. Furthermore, the results indicate a positive and partial mediation effect of hierarchical culture on the relationship between leadership and organizational change management.

6. Implications

The implications of these findings indicate that, while the role of change leadership is acknowledged in the existing literature, theoretical explanations are limited in justifying the positive and significant role of hierarchical organizational culture in change management. Whether change is planned or emergent, it is important to understand the level of the effects of hierarchical organizational culture on change management in order to determine if the findings are peculiar to the UAE, or generic to the public sector in a global context. The theoretical context of the implications provides indicator(s) for management in preserving organizational

culture and managing change, enabling organizations and change leaders to be better prepared to manage the change process, ensuring that the relationships between all the constructs examined and tested in this research are managed at the required level for the purpose of successful and more sustainable change management.

7. Limitations and suggestions for future research

No scientific enquiry is limitation free and this study is no exception. The study focused on organizational level variables (i.e., leadership, organizational culture, and change management) and was conducted across different public-sector service organizations only. Therefore, future research on change management should include individual- and group-level variables along with organizational-level variables. Future research on change management in the UAE context needs to include other variables at the organizational, group, and individual levels. Finally, future research may make a significant contribution to knowledge if designed as a comparative study, across private- and public-sector service organizations.

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Biographies

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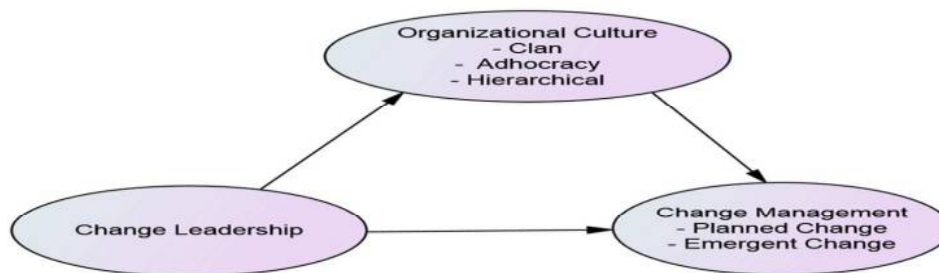# Figures

Figure 1: **Proposed Research Model**

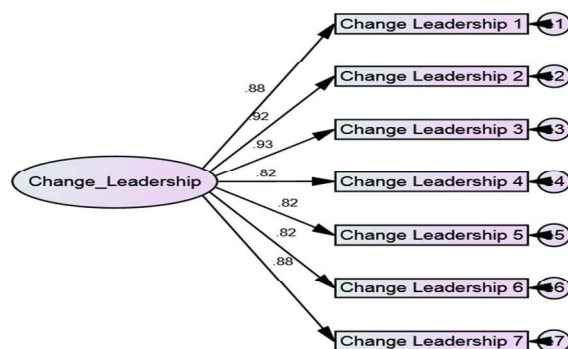Figure 2: **Confirmatory Factor Analysis (CFA) for Change Leadership**

Figure 3: **Confirmatory Factor Analysis (CFA) for Three Factors Organizational Culture**
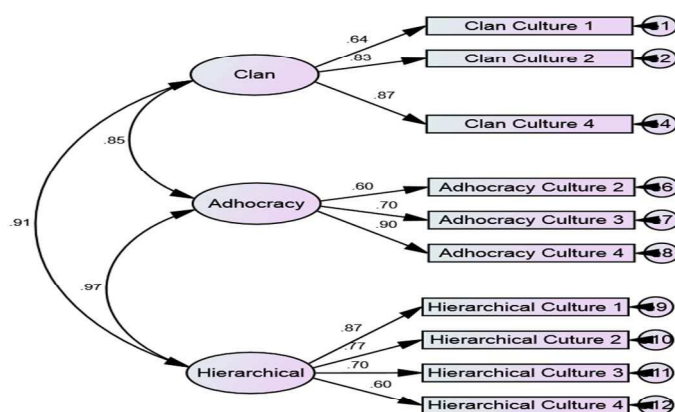

Figure 4: **Confirmatory Factor Analysis (CFA) for Two Factors Change Management**
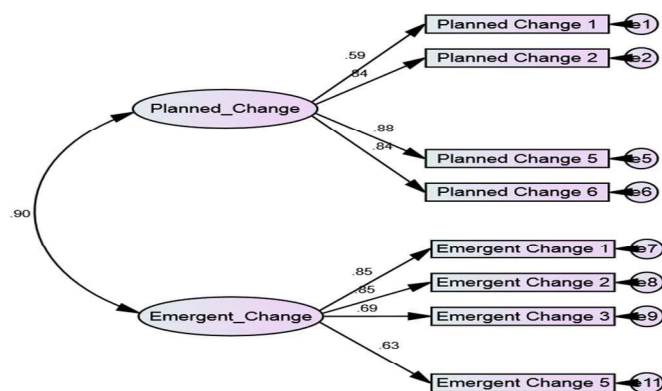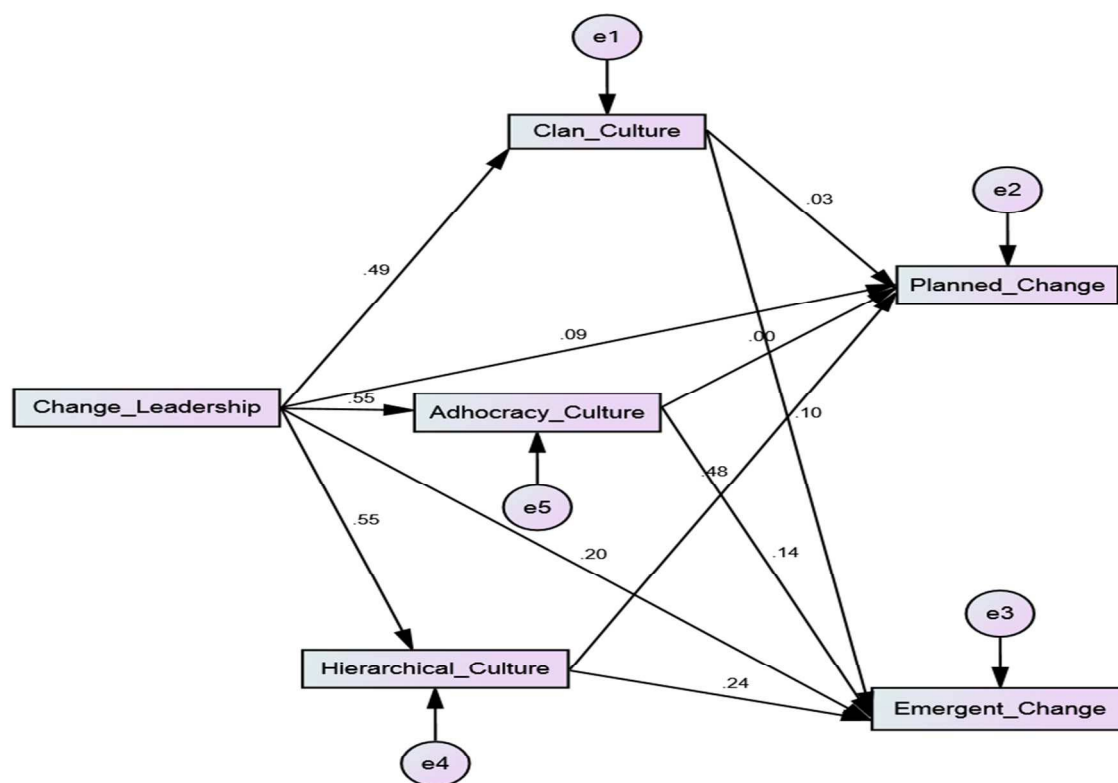
Figure 5: **Structural Equation Model for the Impact of Change Leadership on Change Management through Mediating Role of Organizational Culture**

Results

Table 1: **Sample Details**

Variables	Sample (N = 210)	Percentage (%)	Variables	Sample (N = 210)	Percentage (%)
Gender Male Female	98 112	46.7 53.3	Education graduate Undergraduate Post Graduate	68 114 25	33.8 54.3 11.9
Age < 30 Years 31-40 Years 41-50 Years 51 Years and Above	76 105 18 11	36.2 50 8.6 5.2	Seniority < 1 Year 2 – 3 Years 4 – 6 Years 7 Years and above	29 47 59 75	13.8 22.4 28.1 35.7

Table 2: **Mean, SD, Alpha Coefficient, and Correlation Coefficients (n=210)**

	Variables	Mean	SD	Cronbach Alpha Coefficient	1	2	3	4	5	6
1	Change Leadership	26.73	5.76	.950	1.00					
2	Clan Culture	3.87	.94	.860	.489**	1.00				
3	Adhocracy Culture	3.78	.95	.790	.550**	.675**	1.00			
4	Hierarchical Culture	3.77	.78	.831	.555**	.752**	.742**	1.00		
5	Planned Change	3.97	0.93	.758	.362**	.427**	.417**	.544**	1.00	
6	Emergent Change	4.88	1.11	.780	.444**	.460**	.482**	.517**	.768**	1.00

$^{***}p < 0.001$
$^{**}p < 0.01$

Table 3: **Goodness-of-fit Results for Confirmatory Factor Analysis on Change Leadership, Organizational Culture and Change Management**

Model	χ^2/df	GFI	AGFI	NFI	CFI	TLI	RMSEA
Change Leadership	3.66	.91	.925	.952	.966	.949	.082
Organizational Culture	3.48	.932	.912	.948	.962	.937	.079
Change Management	3.52	.907	.92	.902	.921	.90	.080

Table 4: **Standardized Total Effect of Change Leadership and Organizational Culture (ie. the Hierarchal, the Adhocracy and the Clan Culture) on Change Management**

	Change Leadership	Hierarchical Culture	Adhocracy Culture	Clan Culture
Hierarchical Culture	.555***	xxx	xxx	xxx
Adhocracy Culture	.550***	xxx	xxx	xxx
Clan Culture	.489***	xxx	xxx	xxx
Emergent Change	.458***	.245**	.100	.141
Planned Change	.364***	.480***	.030	.004

$$^{***}p < 0.001$$
$$^{**}p < 0.01$$

Table 5: **Standardized Direct Effects on Change Management**

	Change Leadership	Hierarchical Culture	Adhocracy Culture	Clan Culture
Hierarchical Culture	.555***	xxx	xxx	xxx
Adhocracy Culture	.550***	xxx	xxx	xxx
Clan Culture	.489***	xxx	xxx	xxx
Emergent Change	.200**	.245**	.004	.100
Planned Change	.090	.480***	.141	.030

$$^{***}p < 0.001$$
$$^{**}p < 0.01$$

Table 6: **Standardized Indirect Effects on Change Management**

	Change Leadership	Hierarchical Culture	Adhocracy Culture	Clan Culture
Hierarchical Culture	xxx	xxx	xxx	xxx
Adhocracy Culture	xxx	xxx	xxx	xxx
Clan Culture	xxx	xxx	xxx	xxx
Emergent Change	.262***	xxx	xxx	xxx
Planned Change	.279***	xxx	xxx	xxx

$$^{***}p < 0.001$$
$$^{**}p < 0.01$$

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