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Graduate Studies

Organizational Change Management in Egypt; Contractors' Perspective

A THESIS SUBMITTED BY

Karim Sherif Ayoub

TO THE

School of Sciences and Engineering Construction Engineering Department

SUPERVISED BY

Dr. Ossama Hosny Professor and Graduate Program Director

Spring 2024

in partial fulfillment of the requirements for the degree of Master of Science in Construction Engineering

Declaration of Authorship

I, [Karim], declare that this thesis titled, "[Organizational Change Management in Egypt;

Contractors' Perspective]" and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Signed:

Date:

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Abstract

Organizational change management in the construction industry is a vital process for companies to consider in their operations. Successful implementation of the process allows the companies to go a step further in the market due to their competitiveness derived from better performance and efficiency. However, applying change to the organization and introducing new structure is a challenge for any company seeking better performance, but worth it if it is implemented properly. In general, this research sheds light on the organizational change management implementation in construction contractors in Egypt. Where, this study aims to demonstrate the organizational change management initiatives and change practices carried out by contractors on their organization. In addition, the barriers hindering the changes, benefits from applying changes, the Egyptian's culture aspect through changes were gathered and analyzed. Finally, recommendations for a successful framework was developed based on the research outcomes, which was then validated by experts. Nine interviews were conducted to gather insights on the research objectives then based on these interviews a questionnaire was prepared and distributed to 24 participants to substantiate the input gathered from the interview, with a total of 33 participants.

The results acknowledge that the organizational change management practices are taking place and being implemented by the contractors in Egypt although there are significant barriers and cultural aspect impacting the changes. Major barriers are classified into three elements; resistance to accept the change, lack of awareness of the change management concept and resource allocation consequences during change implementation. Additionally, the Egyptian's culture dominant impact is classified into three elements fear of change and uncertainty, complacent behavior without the interest of change, and mistrust. Accordingly, several recommendations for a successful framework were portrayed tackling the barriers and Egyptian's culture impact to achieve an effective change process. Finally, the framework was validated by conducting interviews with experts to ensure the practicality and effectiveness of adopting these recommendations to overcome the barriers during changes.

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I would like to express my sincere gratitude to my supervisor Professor Ossama Hosny for his tremendous support and guidance throughout my research study. His feedback and advice stretched my abilities to always go a step further. I am grateful for his knowledge and experience that were significant for completing and achieving my master's degree.

Also, I would like to thank all the interviewees and questionnaire participants for not only giving their time but also for their willingness to share their knowledge which is considered one of the main contributions to this research.

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Finally, a very special thanks to my wife for her unwavering support all the way especially in the hardest time. Her trust and believe in my abilities were the main driver to keep going and achieve this milestone.

"Change is the law of life and those who look only to the past or present are certain to miss the future."

John F. Kennedy

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List of Abbreviations

BU	Business Unit		
BIM	Building Information Modeling		
CEO	Chief Executive Officer		
KPI	Key Performance Indicator		
LLC	Limited Liability Company		
MBO	Management by Objectives		
OCM	Organizational Change Management		
SAP	Systems, Applications & Products		

List of Symbols

Not applicable.

Chapter 1

Introduction

1.1 Research Background

The construction industry is characterized as a unique sector amongst all other fields, where each project is different from one another in nature, design, and function. In addition, it is also characterized by the involvement of several stakeholders with diverse backgrounds. Moreover, it plays an important role in developing the countries and improving the social aspect of the citizens. Furthermore, it is reported that the global construction market size value in the year 2022 was around USD 14.4 trillion and it is anticipated that it will grow to reach around USD 26 trillion in 2032 (The Business Research Company, 2023). Egypt's portion of the market size in the year 2023 was approximately USD 88.5 billion and it is expected to continue developing in the next coming years due to the various mega projects being executed in Egypt (GlobalData, 2024).

Executing these projects obviously requires the existence of different parties, such as the employers, consultants, contractors, subcontractors, and suppliers network. Shedding light on the contractor, this organization is defined as a system that is branched into subsystems having different scopes and responsibilities. Each sub-system cooperates with the other to serve and achieve the business targets and objectives under certain circumstances, for instance, the organization strategy, size, environment, and technology (Shash et al, 2020). Hence, any changes to the above-mentioned circumstances would have an impact on the system which might result either in positive or negative outcomes. These changes are either internal or external, internal changes rely on the company's top management decision for improving certain areas but the external changes most likely are out of the companies' hands enforcing immediate action as for instance, economic changes.

Since changes within organizations are inevitable and could not be escapable, therefore companies should consider and always be ready on how to react and deal with these changes in a convenient manner for the sake of competing in the market and achieving stability. In fact, 70% of the organizational changes initiatives unfortunately fail for several

reasons, one of the main reasons is that change leaders do not comprehend the change process' nature (Beer & Nohria, 2000), also, employee resistance to change is considered a major barrier during changes implementation (Furst & Cable, 2008). Accordingly, an effective change management approach is needed not only to overcome the process drawbacks but also to be able to achieve the company's objectives. Figure (1) elucidates the difference between an effective change management process and without change management process implementation, with respect to the performance factor over time. It is clear that the performance is improved when change management is implemented appropriately unlike lack of change management.

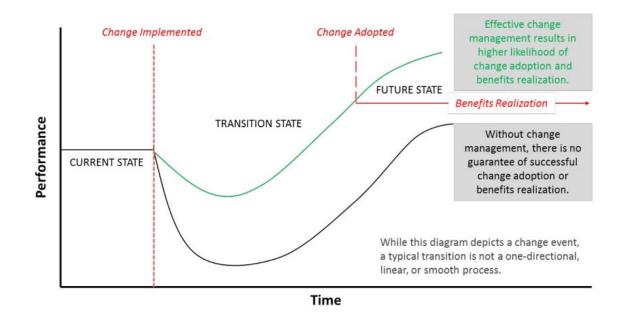


FIGURE 1: The Effect of Change Management on The Transitional Process (The Association of Change Management Professional, 2014)

Understanding the organizational change management process in addition to recognizing the various factors affecting this process is an essential starting point before applying changes on the organization to ensure a successful process which then results in better performance.

1.2 Problem Statement

In previous research studies, many frameworks were introduced, recommended, and developed by authors for organizational change management process not only for companies in the construction industry but also for companies in different industries. The design of these frameworks consist of suggested milestones to follow which were present since the late 40's with Kurt Lewin's 3 Stages change model; unfreezing, changing, and freezing (Lewin, 1947). Recent frameworks introduced the cultural factor in their change process by addressing the urgency for considering and studying the company's culture before change implementation (Aziz et al, 2017). Reasons and benefits behind the change implementation were pinpointed in addition to the barriers incurred during the process.

Unfortunately, very limited research focused on the Egyptian market regarding organizational change management with lack of a clear framework dependable on the Egyptian' culture. Also, the level of awareness for the need of the change is not prevailed in Egypt. This results in impacting the construction companies negatively and increasing their struggles. Therefore, this study focuses on filling the gap by shedding light on the organizational change management practices in the Egyptian market, especially in the construction industry. Furthermore, this study aims at raising awareness by demonstrating the reasons and benefits behind the changes. Finally, recommendations for an applicable framework based on the Egyptian's culture and barriers is presented to support decision makers in construction companies while implementing changes and minimizing risks.

1.3 Research Objectives

This research aims to portray a simple and convenient successful framework for construction contractors in Egypt to consider while implementing organizational change management. The framework developed should be based on previous literature review, barriers towards changes, the Egyptian's culture aspect, and expert's advice by conducting interviews and distributing a questionnaire. In summary, the main objectives of this research are listed below:

- 1. Demonstrate the organizational change management initiatives and change practices carried out by contractors working in Egypt
- 2. Identify and analyze the barriers, benefits and Egyptian's culture aspect encountered by construction companies during the change management process.
- 3. Present recommendations for a successful organizational change management framework for construction companies to consider and follow when planning for applying changes in their organizations that is aligned with the Egyptian culture.

1.4 Research Methodology

With regards to the above-mentioned research objectives, the below research methodology approach has been implemented to fulfill the required objectives:

1.4.1 Literature Review

A comprehensive literature review is portrayed on the organizational change management, providing first an overview of the organization structures classification. Then the concept of organizational management is defined in addition to its types and categories. Thereafter, the barriers and reasons behind change implementation were identified and gathered based on previous changes implemented by companies. Moreover, the evolution of the change management process throughout the previous years is presented in detail. Finally, the culture types were identified with respect to the organizations, in addition to highlighting the main Egyptian cultural behavior related to the corporate environment.

1.4.2 Data Collection - Qualitative Method

To analyze the change management process within the construction companies in Egypt, the first method used is a qualitative method which is considered a crucial part in this research, where the researcher conducted interviews with several experts. The interview questions were first developed and then addressed to the interviewees during the interview meetings. The questions addressed shed light on the organizational change management practice in Egypt, in terms of status, change practices that took place, reasons behind the changes, barriers faced by the companies while implementing the changes, benefits, Egypt's culture impact on the changes, and finally any recommendations for a successful framework.

1.4.3 Quantitative Method

The second method implemented is a quantitative method by preparing and conducting a questionnaire among the construction companies working in Egypt. The questionnaire approach was based on the collected insights from the interviews to fulfill the sampling population. The structure of the questionnaire is elaborated under chapter 3.

1.4.4 Analysis

The responses from the interviewees and the questionnaire respondents were gathered and consolidated. Then, these consolidated results were presented and analyzed using the social network approach.

1.4.5 Framework Development

At last, recommendations for a successful framework are concluded based on several aspects, the first aspect is previous frameworks introduced in literature, the second aspect is related to the major barriers gathered during the interviews and reinforced by the questionnaire, the third aspect refers to the interviewees' and experts' recommendations, and lastly is the addition of the Egyptian's cultural aspect to the framework.

1.5 Thesis Structure

The thesis structure consists of five chapters, each chapter is highlighted and described in detail in the below sub-sections:

- Chapter 1 (Introduction): This chapter portrays the research background regarding organizational change management and the problem statement. In addition, it pinpoints the main research objectives and the research methodology approach implemented.
- Chapter 2 (Literature Review): This chapter highlights the organizational change management topic in the previous research studies. It depicts the organization's different structures, defines organizational change management, and sheds light on the reasons why companies initiate changes along with the barriers that resisted the change implementation. Moreover, it presents previous frameworks for a successful change process, provides different organizational cultures and gives background on the Egyptian's culture with respect to the research topic.
- Chapter 3 (Research Methodology): This chapter identifies the methods adopted in this research, where two methods were considered; qualitative (interview) and quantitative (questionnaire) method. Also, it includes the interview and questionnaire design, the sample selection and sample size calculation adopted.

- Chapter 4 (Results and Analysis): This chapter reveals the results and outputs collected from the two methods implemented; 1) interview and 2) questionnaire, in addition to analyzing the output gathered and provides recommendations to be implemented by construction companies when applying changes.
- Chapter 5 (Conclusion and Limitations): This chapter concludes the research findings with respect to the research objectives mentioned above in Chapter 1. It also specifies limitations to this research and proposes recommendations for future research.

Chapter 2

Literature Review

This chapter provides an overview of the organizational change management topic in previous literature. First, the definition of the change management is presented, followed by a representation of the common organizational structures and classifications. Furthermore, the type of changes within the organization were elucidated, in addition to the barriers and obstacles facing these changes. Lastly, successful change management models were presented as well as the organizational and Egyptian's culture characteristics.

2.1 Organizational change management definition

In accordance with previous research, the definition of organizational change management can be classified and summarized into three approaches: 1) transitioning stakeholders, 2) adaptation, and 3) systematic process. Nevertheless, they have similar aims and objectives, the three approaches are described hereunder:

• <u>Transitioning stakeholders:</u>

Shifting individuals or organizations from the initial state to another state with respect to a clear vision, design, and action plan in order to achieve better and positive results (Sacheva, 2009).

<u>Adaptation:</u>

Adapting to certain circumstances and contingencies that are dependent on the organization, such as the organizational size, technology, environment, and strategy to maintain effectiveness and enhance performance (Erdogan et al, 2005).

<u>Systematic process:</u>

Well-structured approach that requires a continuous alignment and management to fulfill the organization and its employees' needs while ensuring effective transition, hence, resulting in better performance and efficiency (Wang, 2013).

2.2 Organizational structures definition and classification

The organizational structure is defined as a way wherein the activities and responsibilities are divided and coordinated among the organization members which also supports controlling the organization's performance (Ahmady et al, 2016). It is also considered one of the organizational design aspects besides the organizational culture and leadership, where (Clawson & Pitts, 2006) defined it as a framework elucidating the reporting channels and relationships between stakeholders. The organizational structure types are summarized into four types as illustrated in the below Figure (2).

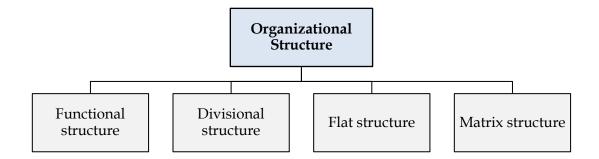


FIGURE 2: Types of Organizational Structure (adapted from Zaki et al, 2015)

2.2.1 Functional structure:

A functional structure consists of different team members based on their specialization as elucidated in Figure (3), where they are divided according to their function (e.g. engineering, commercial and human resources, etc.) and each team supports their related functions under a hierarchical structure (Cristóbal et al, 2018; Clawson & Pitts, 2006).

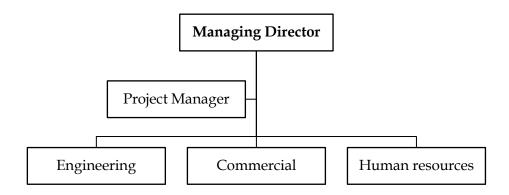


FIGURE 3: Functional Project Structure (adapted from Cristóbal et al, 2018)

2.2.2 Divisional structure:

A divisional structure focuses on splitting the organization into different regions or according to the project's nature. It is often used in environments with a specific specialization or knowledge required to serve the project. Figure (4) illustrates a typical divisional structure (Zaki et al, 2015).

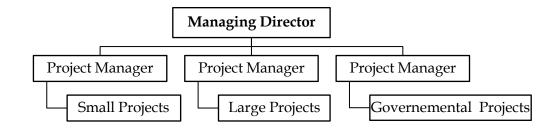


FIGURE 4: Divisional Project Structure (adapted from Zaki et al, 2015)

2.2.3 Flat structure:

A flat structure is characterized by reducing the number of hierarchy levels, resulting in shorting the vertical path of the reporting channels from bottom-level to top-level employees as shown in Figure (5). This type of structure is commonly used in small sized organizations which empowers and gives high responsibility to the bottom-level employees (Rishipal, 2014).

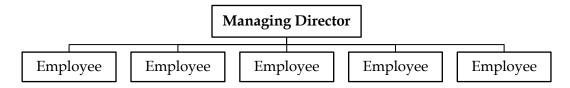


FIGURE 5: Flat Organizational Structure (adapted from Mintzberg, 1989)

2.2.4 Matrix structure:

A matrix structure can be considered as a blend between the functional organization and the flat organization. Thus, the staff might have to report to both related project manager and function manager. This type of organization structure is mainly used in complex and large organizations with several projects. Figure (6) illustrates a typical matrix project structure (Cristóbal et al, 2018).

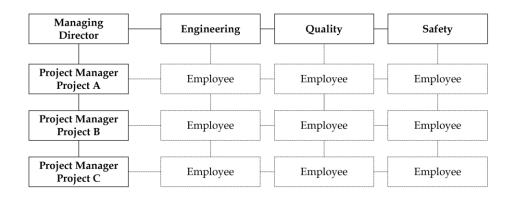


FIGURE 6: Matrix Organizational Structure (adapted from Clawson & Pitts, 2006)

2.3 Organizational change types and categories

Organizational change is a significant change practice to achieve certain goals, these changes have different classifications and approaches dependent on the company direction and targets. In previous research, several typologies and categories of organizational change practices were portrayed. (Cao et al, 2000) summarized the types of organizational changes into four categories: 1) changes in the process, 2) changes in organizational functions, 3) changes in human behavior in terms of relationships to social rules and practices, and 4) change in power distribution within the organization. Moreover, the consultancy "Authenticity Consulting, LLC (2012)" spots the light on the major change types, as described below in Table (1).

Table 1: Major Types of Organizational Changes Including Descriptions (Authenticity Consulting	3
LLC, 2012)	

Main Types of Organizational Changes					
Туре	Description				
Organizational-wide Versus Subsystem Change	 <u>Organizational-wide</u>: refers to a major collaboration or restructuring of the company. <u>Subsystem</u>: refers to minor changes in the company's scope of work, could be addition or removal of service or product. 				
Transformational Versus Incremental	 <u>Transformational:</u> sometimes called "quantum change", and it refers to changes in the organizational structure, for instance from functional to flat structure. <u>Incremental:</u> refers to regular changes due to improvement needs, such like introducing technology changes for enhancement. 				

	- <u>Remedial</u> : interfere to fix damages or losses with high				
Remedial Versus Developmental Change	 urgency. <u>Development:</u> focus on developing certain areas seeking more success, could be increasing the customers or services. 				
Unplanned Versus Planned Change	 <u>Unplanned:</u> sudden and unexpected event that forces the organization to change, could be the loss of significant stakeholder like the company's CEO. <u>Planned:</u> well-structured change with clear vision and implementation due to the realization and need for major change from the top management. 				

2.4 Reasons and barriers for organizational change management

Throughout the construction projects many changes occur whether due to internal or external reasons, hence impacting the project and the organization either with negative or positive impact. In fact, dealing with and managing these changes from the top management is essential for several reasons, for instance, to provide stability, profitability for the company and remain competitive in the global market. (Erdogan et al, 2005) defined internal and external reasons resulting due to changes, for the internal reasons, they are mainly any changes related to the project environment and could be managed and handled by the organization. Internal reasons could include changing the organization structure, changing the product or services provided by the company, and introducing new technology and software to the system (Love et al, 2002; Varopajev, 1998). On the other hand, the external reasons are related to factors that are not expected and could not be controlled by the organization. These could include changes to the economic situation resulting in instability and fluctuating market, force majeure events due to unforeseen changes such as sudden loss of a senior manager, which then forces the company to apply changes (Love et al, 2002; Varopajev, 1998). Table (2) illustrates the internal and external reasons.

Ta	ıbl	e	2:	Reasons	for	Organizat	tional	Changes
----	-----	---	----	---------	-----	-----------	--------	---------

Reasons for Organ	Reasons for Organizational Changes			
Internal Reasons	External Reasons			
Organization structure changes	Political changes			

(Varopajev, 1998)	Relation between parent and sister company changes	Economic changes
	Shifting to other products or services	Legislation changes
(Love et al,	Technology and techniques	Force majeure
2002)	Behavioral responses	Social uncertainties

Further external and internal reasons for initiating changes were also concluded by (Oakland & Tanner, 2007), where the authors conducted an interview on 28 organizations to specify and provide reasons for changes in general business industries. Table (3) summarizes the different drivers to launch a change as derived by the authors.

Table 3: External and internal drivers for change (Oakland & Tanner, 2007)

Main Drivers for Change		
Internal Drivers	External Drivers	
Efficiency improvement	Customer requirements	
Quality improvement	Market competition	
Process improvement	Shareholders	

On the other hand, (Shash, 2020) concluded the main external and internal driving forces for organizational change management in construction contracting organizations in Saudi Arabia by conducting a face-to-face interview. The results indicate that the main external driving force is the increased competition between contractors due to the decline of the building construction projects while increasing the heavy industrial projects. While, the main internal driving force is due to the organizational growth, where the employee count is increasing resulting in hindering the workflow process within the company.

Shifting from the reasons and factors to the barriers that trigger the change management process, (Ford et al, 2002), proposed that one of the major resistances for applying successful change management is the ongoing background conversations between the employees reflecting specific attitudes that incrementally shape the organization culture. The authors classified these resisting background conversations into 3 levels, as described below (Ford et al, 2002):

• <u>The complacent background</u>: This type of conversation refers to past good experience and success in the organization, and this previous success would be repeated with the

same structure without any need for a change or a new structure.

- <u>The resigned background</u>: This narrative is characterized by the unwillingness and lack of interest and motivation for taking part in the change. This could be due to several reasons such as "this change is not efficient to implement" or "no benefit from this move".
- <u>The cynical background</u>: This narrative is similar to the resigned background but more aggressive and with sarcastic manner stating, "This change is impossible", "no one will succeed from this change", or "They must be joking". This behavior leads to translating wrong messages from the top management, for example, the change initiatives proposed might include a change in certain employee's positions, and this change might be translated to these employees that there is mistrust from the top management towards their productivity or performance hence this change is initiated.

(Aziz et al, 2017), specified the reason behind any barriers to change processes is mainly due to complexity, and overcoming this complexity is important to ensure a successful change process. Adding to (Ford et al, 2002) conclusion regarding the resistance due to the ongoing background behavior "human behavior", the authors claimed that complexity is one of the main reasons that triggers change. They also divided the complexity into two sectors, which are "system behavior" referring to merging different sub-systems to produce certain outputs and results, and "ambiguity" such as the occurrence of unforeseeable events.

Focusing on the change management applications in the Egyptian market, Radwan (2022) presents five major factors which affect the organizational change management in the Egyptian hospitality industry. The author distributed a questionnaire to employees working in large hotels in Egypt. The five factors are illustrated in the below Table (4).

Table 4: Main Factors Affecting the Organization Change in the Egyptian Hospitality Industry(Radwan, 2022)

Mai	Main Factors Affecting the Organizational Change	
	Employee engagement	
	Leadership support	
	Communication	

Organizational culture Employee resistance to change

(Radwan, 2022) highlighted that the employee engagement factor has the most positive impact on changes and suggested that hotels management to consider motivating the employees both physically and emotionally during changes. Also, the author pinpointed that the employee resistance to change would incur negative impact on the change, he suggested that causes of the resistance to be well defined before and handled properly. While in other countries, for example in the Saudi Arabia's construction market, (Shash, 2020) demonstrate the most critical factors for effective change management, which are "leadership support during the change" and "prior clear definition of a change".

2.5 Successful change management models

2.5.1 Kurt Lewin's three stages approach:

One of the Godfathers of change management models is Kurt Lewin, he is also considered among the first people to start discussing the change management process topic. Lewin (1947) introduced the three stages model for a successful change: unfreezing, changing, and freezing, where Lewin focused that change management is not an event but rather a process. The three stages consist of:

- <u>Unfreezing</u>: The starting point of the transformation process which includes the understanding, preparation and needs for the change.
- <u>Changing</u>: This stage covers the implementation of the change from the initial state to the desired state.
- <u>Freezing</u>: Represents the consistency and stability phase after the implementation of the change, ensuring the change is processed and becomes the new norm.

2.5.2 Kotter's 8 steps transformation process:

Kotter (1996) concluded a successful transformation process that consists of eight steps as shown in Figure (7), also known as Kotter's 8 steps. The first step starts with creating the urgency for the change by identifying and discussing potential crises and major opportunities. The second step encourages the top management to gather a group of employees who have the authority to lead the change and work together as a team. The third step consists of developing the vision and the strategy to implement this vision. These first three steps combined are the first stage in which the climate for the change within the company is being prepared. The second stage consists of the following three steps, where the organization is being engaged in the intended change and prepared for change implementation. The fourth step consists of communicating the change vision and objectives to all levels within the company. The fifth step includes getting rid of any barriers and obstacles while encouraging risk taking to implement the change vision. The sixth step includes planning for visible improvements to encourage the employees by celebrating those quick wins. The final stage consists of the last two steps, which is related to implementing the change in step 7 and maintaining it for the future in step 8.



FIGURE 7: Kotter's 8 steps change model (adapted from Kotter, 1996)

Kotter (1996) stated that the changes are not easy to execute, and the top management team might be in some cases in a hurry and skip intermediate milestones to reach the final step faster. Nevertheless, these eight steps are necessary for a successful change and skipping any step would have a negative impact because they are dependent on each other. For example, jumping from step 3 to step 5 directly is not efficient as the vision should be conveyed to the employees through good communication to show clarity and convey ownership and responsibility to them before implementing the change. Therefore, neglecting any step throughout the process might lower the chances for success.

2.5.3 Francis approach for organizational and managerial competencies:

On the other hand, (Francis et al, 2003) presented five organizational and managerial competencies, as shown in Figure (8). They conducted their research by approaching 10 successful organizations which implemented successful change management and addressed three questions as listed below:

- 1. "How did management facilitate a successful transformation?"
- 2. "What competencies did top management show?"
- 3. "What organizational competencies were developed?"

Five competencies were recognized as being crucial for undertaking transformation with a high probability of success. The first competency attributed to the top management is to recognize the challenge, where they are able to clearly identify the current state and notice the severity of the need for change. The second competency is to determine a transformational strategy that is fitting to the current and desired future state. Four different transformational strategies have identified so far, which consist of: reconfiguring the value stream, re-defining the driving force of the business, re-constructing the competencies of the business, and re-defining the value proposition to the existing and/or new customer. The third competency is to require extensive innovation from the employees by encouraging an entrepreneurial spirit to be integrated in the strategy. The fourth competency is to manage systemic change by preparing and monitoring carefully all the subsystems and their change processes. The fifth and final competency is to upgrade leadership processes by being capable of adopting the change decision and giving authority to the most suitable leaders who will manage the change onwards.

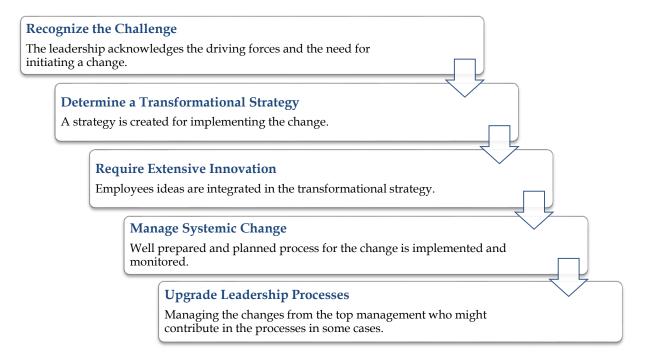


FIGURE 8: Successful Change Management Framework (adapted from Francis et al, 2003)

2.5.4 Erdogan's contingency theory:

Erdogan et al (2005) presented the concept of contingency theory, stating that there is not one perfect way or direction to follow for organizational transformation. However, the organizations will perform better when they focus on fitting and adapting to several contingencies such as: environment, technology, organizational size, and organizational strategy. As a result, by adapting to the above-mentioned contingencies successful organizational change would occur.

2.5.5 Porras' targeted behavior approach:

Porras et al (1986) classified the organization into 7 system elements, as shown in Figure (9), where during the daily corporate life the individual behavior of the organization members is impacted and affected by several factors, for instance; the physical setting, technology, organizing arrangements, and social factors systems, hence impacting two major systems: individual development and organizational performance.

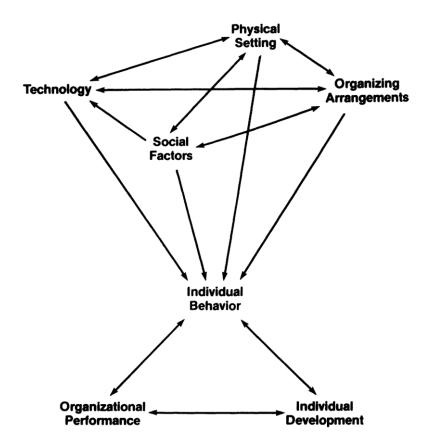


FIGURE 9: A Skeletal Model of Organization (Porras et al, 1986)

Furthermore, a survey was conducted to identify desired behavior characteristics which lead to an improved and successful transformation process. These characteristics are classified into two groups, the first classification relates to all individuals on all levels of the organization, whereas the second is specifically related to managers.

As illustrated in Figure (10), the answers collected related to the individuals' desired behavior include open communication, collaboration, taking responsibility, and maintaining a shared vision. Additionally, individuals are encouraged to solve problems effectively, being respectful towards others while maintaining an inquiring and experimental attitude.

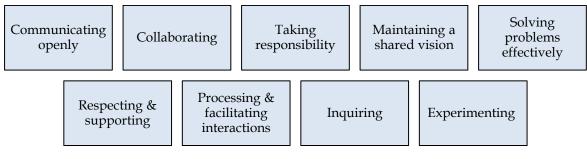


FIGURE 10: Targeted Behavior of Individuals for a Successful Change Process (Porras et al, 1986)

Regarding the managerial desired behaviors as shown in Figure (11), five characteristics were identified which are generating participation, leading by vision, functioning strategically, promoting information flow, and developing others. Integrating these behavior attitudes strengthens the success of the transformational process.

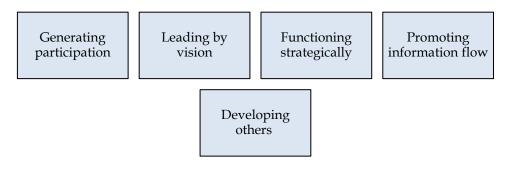


FIGURE 11: Targeted Behavior on Managerial levels for a Successful Change Process (Porras et al, 1986)

2.5.6 Oakland & Tanner's success factors and framework:

Oakland & Tanner (2007) conducted a review of the literature to identify the most critical factors for a successful transformational process based on previous papers. Five success factors were identified which are essential elements when applying change. The first of which is having a project champion with the responsibility of incorporating the individuals' ideas within the process and proactively communicating with all systems. The second success factor is having the top management's participation and commitment. The third success factor is having a capable project management team with clear goals and timelines. The fourth success factor is creating cross-functional and multi-disciplinary teams to gather a broader perspective and encourage innovative ideas. The fifth success factor is the use of consultants due to their expertise in facilitating the process and sharing their knowledge with the organization. These factors are listed and summarized in Table (5).

Critical Success Factors		
Factors	Description	
Project Champion	Integrate the employees in the process and consider their ideas including a clear communication.	
Management Commitment	Top management participation in the process.	
Project Management	Addressing and monitoring targets and objectives.	
Natural Work Team Process	Share knowledge and encourage innovations.	
Use of Consultants	Provide trainings and support from experienced personnel.	

Table 5: Summary of Success Factors for a Transformational Process (Oakland & Tanner, 2007)

Second, a framework for successful change management was concluded based on the output of the research which included a questionnaire survey with 34 senior managers via face-to-face or telephone. The framework presented is divided into two cycles, the first cycle is about the readiness for change, and the second one is about implementing the change as shown in Figure (12).

The first step is to identify the drivers and reasons for the change, whether internal or external drivers as mentioned above under the barriers of change management implementation, hence the need for initiating the change is then recognized and understood by the top management. Subsequently, the leadership starts studying the future needs and results from implementing these changes and addresses the direction on how to meet these needs, followed by a detailed planning process, on how to implement the change and address the strategic objectives to the employees through the organizational processes. The change is then implemented whether by change in the organization structure or roles, etc., where these changes are then monitored, evaluated, and controlled by measuring the performance of the organization. Then, the whole process impacts the behavior of the employees on how they will deal towards this change. These behaviors and attitudes originate from beliefs and values which are the top management's responsibility to impact. It is critical to prioritize influencing these behaviors, as they decide whether the change will work or not. Going through the cycle of "implementing change" proves that behaviors have accepted the change and validates the success of the change process.

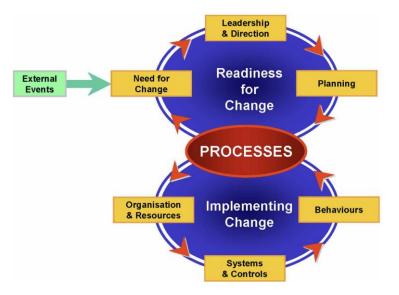


FIGURE 12: Successful change management framework (Oakland & Tanner, 2007)

2.5.7 Top-down approach:

(USAID, 2015), introduced the top-down approach in their transformation strategy instead of the common practice of bottom-up change, by starting the change from the top management personnel. Figure (13) presents 7 steps for a successful change management process on an organizational level.

- The first step starts with addressing ownership to the employees on all levels towards the organization by taking part in creating the vision and ensuring that the vision is clear and unambiguous.
- Secondly, focusing on the concept of top-down, involvement of the leadership and taking part in the transformation from the start is recommended. This is established through frequent communication with the employees on the benefits and targets of the change thereby encouraging the employees to the new structure.
- A change management plan is then developed based on several analyses of the status of the organization. It assesses how ready they are for the change, including any risk analysis needed with respect to a mitigation plan for any potential risks that might occur. It is important to take into consideration that this change or transformation validity should be planned from the start to be a long-term transformation and not for a short period of time.
- Subsequently, the involvement and engagement of all stakeholders is crucial by taking their opinions and ideas on the plan. This is considered a good milestone to address

responsibility and ownership to the employees towards the change.

- Among these milestones, communication is an important key in linking these steps together and ensuring the change is clear to all stakeholders, encouraging change resistors to adapt to the change, and facilitating the transformation process.
- Moreover, it is recommended that companies need to provide both training and resources to their employees, for instance, training the employees' on how their behaviors need to change and offering all the resources needed to adopt the change such as tools, equipment, and funding.
- Lastly, evaluation and monitoring of the change are essential milestones to be implemented, taking into consideration that the measuring method should be planned from the early starting phase.

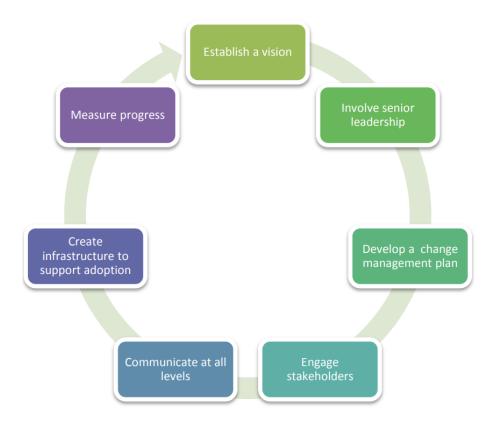


FIGURE 13: 7 Steps for a Successful Change Management Process (USAID, 2015)

2.5.8 Cultural approach:

(Aziz & Curlee, 2017) introduced the culture aspect to the change management process equation, highlighting that the exclusion of understanding and considering the culture would prevent ensuring the possibility of retaining the change in the long term but rather will be valid for a very short period. Furthermore, the authors concluded a successful change management framework under three major actions: understanding the culture, building the base of the change management process, and finally launching and implementing the change while considering the culture, as shown in Figure (14).

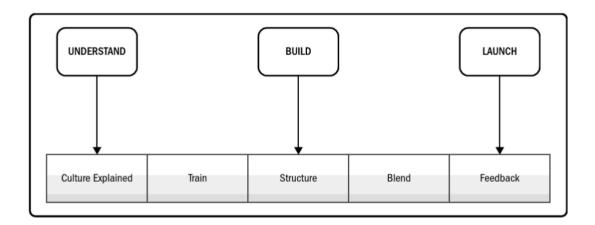


FIGURE 14: Understand-Build-Launch Model of Successful Organizational Change (Aziz & Curlee, 2017)

Focusing on the cultural aspect, the author sheds light on three factors that merge to form and shape culture; 1) morale, 2) investment, and 3) knowledge transfer, highlighting that the morale factor is vital to organizations and should always be maintained by the top management. Developing such an organization's morale could be resulted from several practices, such as good and clear communication to employees to avoid any misunderstanding or confusion thoughts that might have been accumulated in their minds towards the change or the organization. Adding to the moral factor, the investment factor plays an important role in the organization culture because through the investment process like trainings, recognition programs and awards, the culture would then be impacted positively and creating a thriving atmosphere to the employees. Lastly, knowledge transfer factor refers to transferring the culture of the organization knowledge towards the employees and could take place by coaching and mentoring the employees.

2.6 Organizational culture types

Various types of organizational culture were classified in previous research, but the most famous classification is the one introduced by (Cameron & Quinn, 2006). The author classified the organizational culture into four characteristics:

- <u>The Clan culture</u>: creates a family environment between the employees, where the managers consider themselves as mentors and coaches to their assistants, also this type of culture is characterized by a high team-work spirit.
- <u>The Adhocracy culture</u>: focuses on the continuous innovation and experiments to produce new services or products to be competent and leading pioneer in the industry.
- <u>The Hierarchy culture</u>: characterizes by well-structured organization with clear responsibilities of employees' deliverables and tasks, policies, and rules.
- <u>The Market culture</u>: targets on achieving results and goals that would then be reflected on the market share value. Moreover, it is a demanding and not easy environment for employees to adapt to, especially when targets are always being evaluated.

2.7 Egyptian cultural background

The term culture is defined as "the values held by members of a given group that distinguish it from other groups" (Dimmock & Walker, 2000), including the traditions and norms these members believe in and live. Spotting the light on the Egyptian culture under the corporate environment, (El Shenawi, 2012) highlighted that the Egyptian culture is hard to be identified since Egypt is exposed to different cultures and open to the world, stating that different characteristics are valid within the same culture.

On the other hand, (Nafea, 2012) portrayed certain characteristics on the Egyptian's culture by investigating the relationship between culture and knowledge transfer in Egypt. One of the main characteristics identified by the author is the "relationshiporiented" characteristic, which is clearly demonstrated through the acceptance behavior that is based on the relationship and nearness of the parties rather than solely based on the knowledge and information shared within the communication. Another characteristic is the "fear of unknown", meaning that Egyptians seek to stay in the comfort zone regardless the circumstances rather than accepting the challenges.

Chapter 3

Research Methodology

This chapter demonstrates the research methodology including the procedure adopted, design of the interview and questionnaire, and the sample size calculation aiming to support and fulfill the research objectives.

3.1 Research approach

According to (Creswell, 2014), three different methods for research studies were presented in detail including but not limited to their definitions, how to select the convenient method, and procedures. The three methods are gathered and elucidated hereunder:

- <u>Qualitative method:</u> refers to the process of collecting information which could be classified as open-ended data with the purpose of representing information in figures and tables and understanding deeper phenomena on the respective topic. There are multiple approaches of quantitative research including ethnography, grounded theory and case studies.
- <u>Quantitative method</u>: refers to the process of gathering and analyzing the data that is collected from surveys or experimental methods. The process starts with defining the research questions followed by specifying the sample based on the population factor. After collecting the data, the results are analyzed and interpreted, portraying the outcomes and trends. There are several strategies of inquiry of quantitative methods, where the most common of which is survey research. The latter presents numeric results and description of trends using questionnaires or structured interviews.
- <u>Mixed method</u>: refers to the process of mixing the two approaches, qualitative and quantitative approaches, to strengthen the findings and reinforce the results collected. Several methods are adopted, for instance, sequential mixed methods, where research starts with qualitative interviews to gather insights consequently quantitative survey method is adopted to generalize and validate the results.

Another method is the concurrent mixed method, in which the researcher applies two methods, qualitative and quantitative methods, in parallel and then collect and interpret the overall results.

3.1 Research procedure

The research aims to examine the status of organizational change management, portray the reasons and barriers behind change implementation and then to conclude successful framework recommendations. In pursuance of the previous objectives, a qualitative method was adopted followed by a quantitative method, for the sake of substantiating the outcomes from the qualitative approach. Therefore, interviews were first conducted to gather insights and collect data regarding the above-mentioned objectives, then a questionnaire was developed and conducted based on the input received from the interviewees. Accordingly, a sequential mixed method is adopted to fulfill the desired research objectives and strengthen the outcomes.

3.2 Interview and questionnaire design

The interview and the questionnaire were designed based on experts' advice and recommendations in addition to previous literature questions addressed in similar research topics. At first, the interview is divided into 4 sections; the first section addresses a question on the interviewee's background. The second section focuses on the organizational change management practices status in the contracting companies working in Egypt. The third section gathers information regarding the reasons, barriers and benefits due to changes applied by the contractors. The fourth section focuses on any advice or recommendations for a successful framework with respect to the Egyptian's culture impact during changes. The interview questions are listed below:

- 1. Could you please specify your years of experience and your current role in the organization?
- 2. If the company apply any changes on the organizational level or not?
- 3. If yes, then why did the organization apply the change?
- 4. What change practice did the organization apply?

- 5. What were the benefits from the change?
- 6. What were the barriers the company faced during the change?
- 7. What were the Egyptian's culture impact on the employees' response upon applying the change?
- 8. Any recommendation for a successful organizational change management?

Regarding the questionnaire, Appendix 1 includes the questionnaire structure and questions. The questions of the questionnaire were derived from the interview questions addressed, while the proposed answers added in the questionnaire were derived and gathered from the interviewees' responses.

3.3 Sample size

The size of the sample calculated is based on the Cochran's sample size formula (Cochran, 1977) as illustrated in the below Equations (1) and (2). Accordingly, the sample size is obtained.

$$n_{0} = \frac{Z^{2}p(1-p)}{e^{2}}$$
(1)
$$n = \frac{n_{0}}{1 + \frac{n_{0} - 1}{N}}$$
(2)

(2)

Where:

n: sample size,

N: population size,

Z: critical value for the confidence level expressed in percentage,

- p: estimated proportion of an attribute that is present in the population, and
- e: acceptable margin of error for the estimated proportion expressed in percentage.

The population size (N) and the estimated proportion of the population (p) were assumed to be 100,000 and 0.5, respectively, with a confidence level of 90% (Z = 1.65). While the margin error (e) is considered as 15%. This means that by repeating this study 100 times, then 90% of the time would have the same results with a likelihood margin of error in the results by ± 15%.

Therefore, after applying the above calculations, the minimum sample size required is 30 respondents. Accordingly, a total of 33 respondents participated in the interview and questionnaire conducted to fulfill the above-mentioned formula.

3.4 Sampling selection

The selected sample was limited to the private contracting companies working in Egypt only, and mainly in the private sector. Various employees from several departments with different backgrounds were interviewed based on their knowledge and awareness regarding the research topic. The departments and backgrounds of the participants were classified into human resources, business development, project management, technical, commercial, contracts and information technology. Table (6) and (7) portray the selected sample profile including their years of experience and background.

Interview Respondents'	Sector	Background	Years of Experience
C1	Private	Commercial	20+
C2	Private	Business Development	10 < 15
C3	Private	Human Resources	15 < 20
C4	Private	Business Development	10 < 15
C5	Private	Human Resources	20+
C6	Private	Human Resources	5 < 10
C7	Private	Human Resources	20+
C8	Private	Business Development	10 < 15
С9	Private	Business Development	15 < 20

Table 6: Interviewees Respondents' Profile	Table 6	5: Interviewees	Respondents'	Profile
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Questionnaire Respondents'	Sector	Background	Years of Experience
Q1	Private	Human Resources	5 < 10
Q2	Private	Technical	20+
Q3	Private	Operations	20+
Q4	not available	Commercial	15 < 20
Q5	Private	Contracts	10 < 15
Q6	Private	Technical	10 < 15
Q7	Private	Technical	15 < 20
Q8	not available	Human Resources	5 < 10
Q9	Private	Information Technology	10 < 15
Q10	Private	not available	10 < 15
Q11	Private	Technical	10 < 15
Q12	Private	Commercial	5 < 10
Q13	Private	Tender	5 < 10
Q14	Private	Technical	5 < 10
Q15	Private	Commercial	15 < 20
Q16	Private	Contracts	5 < 10
Q17	Private	Project Controls	0 < 5
Q18	Private	not available	5 < 10
Q19	Public	Technical	5 < 10
Q20	Private	Technical	10 < 15
Q21	not available	not available	10 < 15
Q22	Private	Contracts	5 < 10
Q23	Private	Commercial	5 < 10
Q24	Private	not available	10 < 15

Table 7: Questionnaire Respondents' Profile

3.5 Interview and questionnaire conduction

Regarding the qualitative analysis, an interview invite was circulated to around 40 personnel to participate by sending the request via LinkedIn application and mobile phone. 9 respondents accepted the interview invite and consequently the interviews were conducted virtually via Zoom application. On the other hand, regarding the quantitative analysis conduction, around 65 requests were distributed to contractors' personnel to participate in the questionnaire, where 24 respondents accepted and completed the questionnaire.

3.6 Data Analysis

After collecting the data from the above questions, the status of implementing the change management in Egypt were assessed and evaluated based on the participants responses. Moreover, a summary of the reasons, benefits and barriers from implementing changes was concluded. In addition, social network approach was adopted to analyze the reasons behind changes carried out by medium and large-sized contractors.

3.7 Framework Development

A framework for a successful change management was developed based on the Egyptian's culture aspect, revealed barriers and obstacles identified in this reseach, experts' advice and previous frameworks under the literature review.

3.8 Recommendations Validation

The concluded recommendations for a successful framework were then shared with experts in this field via face-to-face meetings to take into consideration their point of view on the recommendations and if they have any comments they want to address. After the meetings with the experts, their comments and advice were then collected and incorporated into the original version.

Chapter 4

Results and Analysis

4.1 Introduction

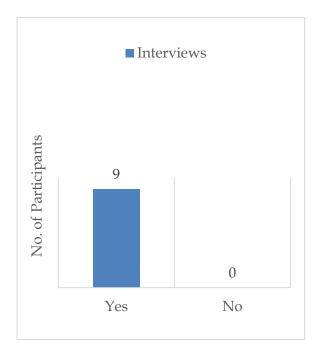
The purpose of this chapter is to present and analyze the answers reported by the interviewees to the research questions during the interviews that took place and the questionnaire distributed to participants. All the interviews' answers and questionnaire replies were collected, demonstrated, and analyzed under each relevant research objective separately as elucidated in the following sections. The analysis of the respondents' replies formed the basis for developing a framework that can be followed by contractors to achieve successful implementation and changes on their organization .

4.2 Objective #1: Status of organizational change management

The status of the organizational change management is first demonstrated in terms of practicality under the contractor's organization; whether the interviewee's company apply changes on the organizational level or not, in addition to specifying the reasons behind why the contractors applied changes on their organization. Moreover, this section demonstrates the change practices that are reported by the interviewees as presented in the following subsection.

4.2.1 Implementation Status

Starting with examining the implementation status, the interviewees' and questionnaire respondents' answers for the question "if the company applied organizational change management before or not" are elucidated in the below Figures (15) and (16), respectively. The results indicate that 100% of the interviewees and 75% of the questionnaire respondents apply change management, while 25% stated that they do not implement changes management.



Puestionnaire

FIGURE 16: Organizational Change Management Implementation Status Responses from Interviewees.

FIGURE 15: Organizational Change Management Implementation Status Responses from Questionnaire's Participants

4.2.2 Reasons Behind Changes

The results for the reasons behind why the companies implemented organizational changes were reported by the interviewees and the questionnaire respondents as shown in Figure (17) & (18), respectively. Then the responses obtained from both the interviews and questionnaire were consolidated and summarized as shown in Figure (20). The identified reasons behind changes were classified into 9 categories, which are defined and portrayed below:

- <u>Reputation:</u> whereas the company requires to enhance its reputation with their customers and the market.
- 2) <u>Profitability:</u> refers to the desire to increase the profit margins of the company.
- 3) <u>Process improvement:</u> whereas the company expedites and enhances the processes of fulfilling the desired objectives.
- Performance improvement: whereas the company desires to elevate the overall performance of its organization and employees.

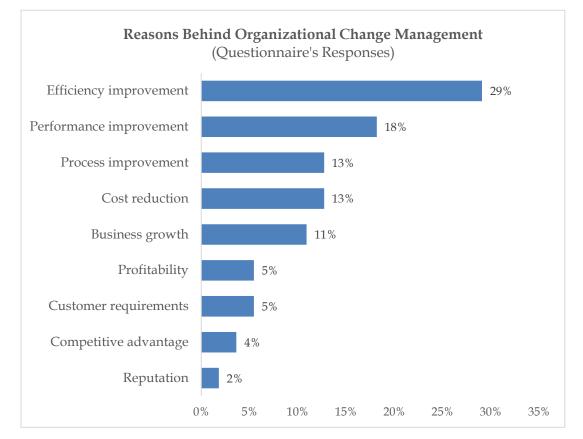
- 5) <u>Efficiency improvement:</u> refers to achieving the required objectives by optimizing the resources, thereby being as efficient as possible.
- 6) <u>Customer requirements</u>: whereas the company must adapt to the customer requirements, which could vary from the company's organizational status quo.
- 7) <u>Cost reduction:</u> refers to cutting unnecessary or ineffective expenses to enhance the company's cash flow.
- 8) <u>Competitive advantage:</u> to have a unique persona within the market.
- Business growth: whereas the company expands its capabilities internally as well as externally, accommodating for wider scopes and more projects.

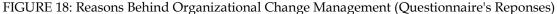
Figure (17) shows the reasons behind organizational changes that are reported by the interviewees, where 21% of the total reasons identified "efficiency improvement" as the anticipated driver for changes. Following that, 16% were attributed to "process improvement", "performance improvement", and "competitive advantage". The remaining reasons include "business growth" with 11%, while "reputation", "profitability", "customer requirements", and "cost reduction" each with 5%.



FIGURE 17: Reasons Behind Organizational Change Management (Interviewees' Reponses)

Similarly, Figure (18) shows the reasons behind organizational changes that are reported by the questionnaire's participants, where 29% of the total reasons identified "efficiency improvement" as the anticipated driver for changes. Following that, 18% were attributed to "process improvement", 13% attributed to "performance improvement", and "cost reduction". The remaining minor reasons include "business growth" with 11%, while "profitability" and "customer requirements" contribute with 5%, lastly "competitive advantage" and "reputation" contribute with 4% and 2%, respectively.





Consolidating the interviewees' responses and the questionnaire's responses together, as shown in Figure (19), it is proved that the most reason behind organizational changes is "efficiency improvement" attributed with around 27% from the total reasons for change. The second most critical reason is the "performance improvement" accounting to 18% and followed by "process improvement" accounting to 14%.



FIGURE 19: Reasons Reported by Interviewees & Survey Respondents Behind Changes.

In light of the results portrayed in Figure (19), by viewing a holistic perspective from the contractors' point of view, it is clear that the majority highlight that the most common reason behind changes is "efficiency improvement". As seen in Table (8), this is attributed to 20 contractors out of the 33 contractors, representing 61% from the total contractors. This includes efficiency improvement in several areas, such as efficient workstreams, management, serviceability, and ease of doing business.

Reasons for changes	Nr. of Responses	Percentage of Contractors' Responses
Reputation	2	6%
Customer requirements	4	12%
Profitability	4	12%
Competitive advantage	5	15%
Business growth	8	24%
Cost reduction	8	24%
Process improvement	10	30%
Performance improvement	13	39%
Efficiency improvement	20	61%

Table 8	Percentage of	Contractors R	esponding to	Reasons for	Changes

Moreover, the most three reasons reported concurrently by the contractors were analysized using social networking approach and split into two groups, as shown in Figure (20). The first group indicates that efficiency improvement, process improvement and performance improvement are the most three reasons reported concurrently. In parallel, the second group indicates efficiency improvement, cost reduction and performance improvement. Therefore, the common reasons for changes from an overview perspective are mainly the efficiency and performance improvement.

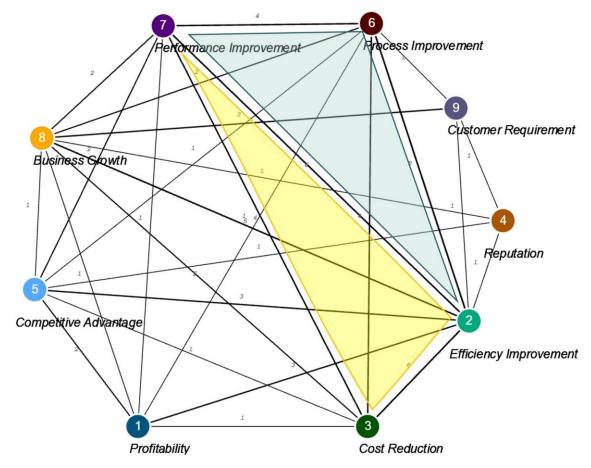


FIGURE 20: Social Network Graph of The Reasons Behind Changes Reported Concurrently by Contractors

Taking a deeper look at the reasons behind changes, a comparison was carried out on the reasons behind changes between large-sized (no. of employees greater than 1000) and medium-sized (no. of employees between 100 and 1000) contractors, as shown in Figures (21) and (22), respectively. The results show that the most two reasons reported concurrently by large-sized contractors are efficiency improvement and process improvement, where it could be envisaged that large companies are facing issues in their process since their organization is large and complex. Nevertheless, the least mentioned connections, for example, the competitive advantage and profitability, demonstrate that large-sized contractors achieve high profits without facing severe threats in the competitive landscape, hence it seems to be balance between the projects awarded and the number of large-sized contractors. On the other hand, the main two reasons derived from the medium-sized contractors are efficiency improvement and performance improvement which demonstrate that medium-sized companies are keen in enhancing their performance rather than process, since it is less complex, but it seems because they have issues in the quality or fulfilling their requirements. Besides, the results show that reputation is reported solely without any linkage with another reason, which might indicate that medium-sized companies are not mainly concerned with their reputation with respect to other factors contributed.

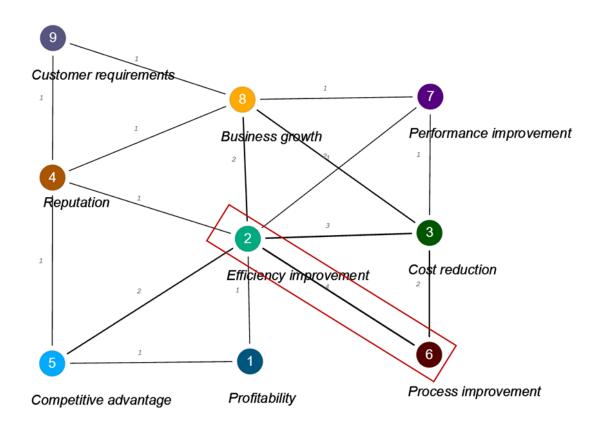


FIGURE 21: Social Network Graph of The Reasons Behind Changes Reported by Large-sized Contractors

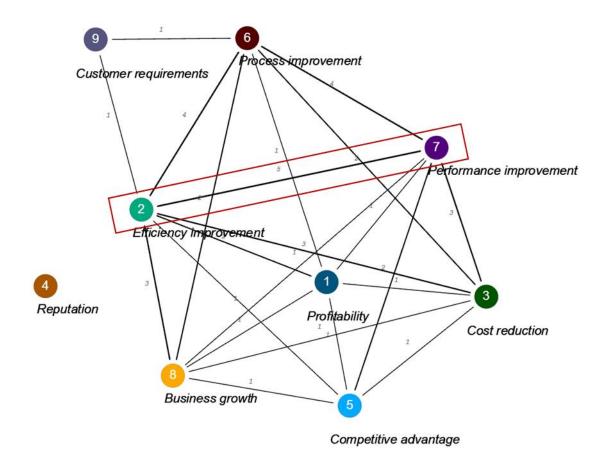


FIGURE 22: Social Network Graph of The Reasons Behind Changes Reported by Mediumsized Contractors

4.2.3 Change Management Practices

Shedding the light on the organizational change practices being applied by the contractors in Egypt, the results reveal eight different practices which were collected from the interviewees and the survey respondents as shown in Figure (23) where the most common change practice taking place in the contracting companies is changing the organizational structure. These different change practices are elaborated more in herein below explaining in detail the change that took place and how it was applied based on the interviewees' answers.



FIGURE 23: Organizational Change Management Practices Applied by Contractors.

4.2.3.1 Splitting to Business Units (BUs)

Five contractors reported that they implemented this change in their organization. One contractor "C1" shared that the company was divided into 4 different business units in several sectors instead of being 1 sole business unit managing all projects, for instance splitting into railways and industrial business units, then after 10 years the division was doubled from 4 to 8 business units in more different sectors. On the other hand, another contractor "C2" shared that the company was divided into 3 business units, where each business unit focuses on a certain region whether inside and outside Egypt rather than being industry oriented as addressed by contractor "C1".

4.2.3.2 Updating the performance appraisal

Four contractors reported that they applied this change in their organization. For example, contractor "C7" discussed the change applied by the company on the organization level by updating the performance appraisal system and competence framework from a non-structured in-house approach to Management by Objectives

(MBO) approach. The in-house approach was based on and affected by the relationship between managers and employees without having a basis to evaluate against, also this approach was not based on individual aspect and the appraisal values were directly connected with annual increase, where most of the managers granted the employees high appraisal values to reflect high annual increase. While Management by Objectives approach sets targets and goals during the appraisal meetings and these targets to be evaluated and assessed after a certain period, depending on 70% on SMART objectives (Specific, Measurable, Achievable, Relevant, and Time-bound), and 30% on competencies related to individual capabilities.

4.2.3.3 Centralization and Outsourcing approach

This change of practice was applied by five contractors, where one contractor "C8" replaced certain services assigned on site with several departments such as quantity surveying and shop drawing services by providing these services from the head office under one consolidated team serving all the project site's needs. Furthermore, the contractor also began to outsource some services instead of hiring candidates and commit to pay for full-time jobs, in addition to renting equipment instead of buying it under the indirect costs, for instance transportation services.

4.2.3.4 Changing the Organizational Structure

Ten contractors reported applying this change, whereas one contractor "C3" decided to change the structure of the organization from a hierarchical organization to flat organization reducing the reporting lines between employees and managers. The Contractor had a challenge to find expertise inside and outside Egypt in order to deliver the project with respect to the client requirements, and not only to find the expertise but also to make sure that there is a harmonization between these different backgrounds. Another contractor "C9" restructured the organization by hiring new qualified leaders with certain specialization to the system due to doubling the change in work volume. This change was carried out by accommodating the new leaders to the structure while maintaining the hired employees, to share and transfer their expertise to the team, for instance, sharing the BIM knowledge in modeling and drafting shop drawings.

4.2.3.5 Combining Departments

Three contractors reported applying this change practice, for example, one contractor "C1" implemented this change by linking the human resources and the IT departments to be connected to each other using one system under one consolidated department, instead of being two separate departments. This linkage supported and provided automated allocation tasks, for instance, the automated access to authorized employees to certain software needed to deliver their services. However, these two departments had different mindsets and culture, but the company forced this change to happen.

4.2.3.6 Digitalization

Five contractors addressed digitalization practices using different approaches. One example is contractor "C2" who introduced the SAP software into the organization to be used as a tool to allocate and book all the costs and resources during the ongoing operations, instead of implementing traditional practices and techniques. Another contractor "C5" introduced face recognition technology for onsite monitoring, wherein the Contractor was able to monitor and record all the onsite staff attendance with less errors than before and minimizing the manual and paperwork.

4.2.3.7 Diversifying Talent Pools

Only one contractor "C6" reported that this change practice has been implemented in the organization, where the contractor initiated to diversify the company's culture by hiring graduates not only from private universities but also from public universities. Moreover, the contractor commenced to hire more females in different sectors into the structure, in fact most of the contracting companies has more males than females' staff.

4.2.3.8 Modifying the Policy

Two contractors addressed changing the policy of the company from a flexible environment to a more strict approach. For example, contractor "C4" began to apply a solid system and strict regulations on the organization with the assistance of an outsourced consultant. This new system is mainly based on a rigid policy in applying and providing benefits when the employees achieve certain terms for instance committing to the specified working hours in their contract, and vice versa, where deductions take place when not achieving the agreed terms.

4.3 Objective #2: Benefits and Barriers to Change Management Practices.

4.3.1 Benefits from applying organizational change management

The second objective in this research presents the benefits and barriers that took place from applying the change management practices stated in the above section. The benefits were collected and summarized from the interviews and questionnaire with respect to each change practice applied by the contractor. It can be noticed from Table (9) that each change practice portrays a number of benefits when applied. For instance, the practice of changing the organizational structure results in business growth and expansion along with good reputation and trust in the market. While splitting into business units results in enhancing the connections with different stakeholders, and gains identity and know-how of the respective specialization. On the other hand, saving time and efforts advantages were reported by applying digitalization and centralization/outsourcing practices, thus reducing costs.

Change Practice	Benefits from applying the change practice
	Business growth
Changing the Organizational Structure	Good reputation and trust in the market
	Sharing experience to the younger generation
Combinin o Donortmonto	Enhance the efficiency in obtaining information
Combining Departments	Improve the efficiency in cost and resource allocations
Disitalization	Enhance the efficiency in obtaining information
Digitalization	Save time and effort
Madificing the Dalign	Discipline and respect due to solid system
Modifying the Policy	Improve the process
Splitting into BUs	Enhance the connections with different stakeholders

Table 9: Benefits reported from interviewees due to applying the change management practices including surveys validation.

	Defined identity and know-how
	Improve the process (ex: reporting systems)
	Clear career path knowledge
Updating the performance appraisal	Employees feeling safe and secure
uppruisu	Fairness among all employees
	Attract top talents to apply
Diversifying Talent Pools	Expand the succession planning
	Improve employees' skills
	More control on the resources
Centralization & Outsourcing approach	Reduce costs (ex: indirect costs)
e accources approach	Facilitate the decision-making process

4.3.2 Barriers from applying organizational change management

Second, the obstacles and barriers that took place during and hinder change implementation were provided by the interviewees and summarized based on the related change practices as presented in Figure (24). Six barriers were identified, as explained hereunder:

1) <u>Delays from top management</u>: Due to the complexity of the organization, any changes can have a significant impact on all layers and systems. Therefore, taking decisions for changes requires a thorough analysis and extensive investigation to assess the required change implications. Top management members have a huge responsibility to make these assessments and recognize juxtaposing elements, otherwise changes could result in detrimental unintended consequences. Hence, the top management incur delays on change implementation which might hinder the anticipated change timeline.

2) <u>Harmonization between different mindsets</u>: Most of the large organizations consist of several systems each operating and coordinating in their own unique nature. Additionally, multinational companies are characterized with having employees with different nationalities, cultures, and ways of working. Therefore, applying changes on the organizations which incorporate different ideologies would likely experience tension and unharmonized perspectives towards the change.

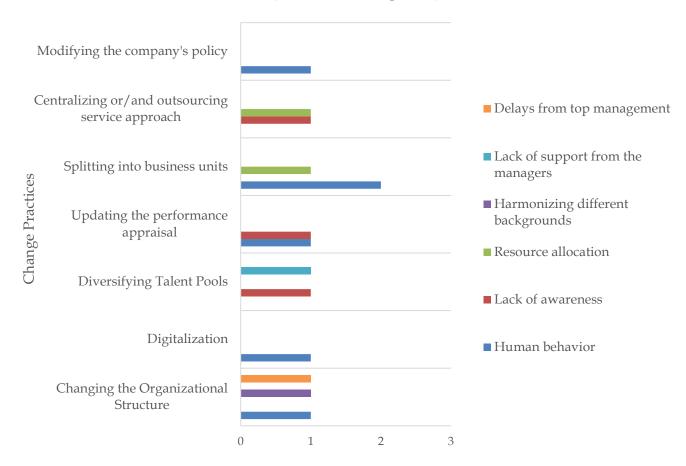
3) <u>Human behavior</u>: This phenomenon is very common and part of human nature, where individuals feel safe and secured when they reach a comfortable routine and a stable environment. Any changes to this state result in several reactions depending on each personality. These reactions include fear of change and rejecting it, where one is uncertain about the future and prefers to stay unchanged.

4) <u>Lack of awareness</u>: Contracting companies' common objective is to fulfill the scope of work with the support from both the technical and non-technical employees. The technical staff usually focus on the technical perspective rather than the management perspective, therefore applying change management on organizations is not a familiar approach to the technical personnel. Hence, this impacts the changes by the behavior of always questioning the need behind the changes.

5) <u>Lack of managers' support</u>: Several changes require shifting the managers' responsibilities and scope, resulting in dissatisfaction from the managers towards the change. They might fear that their position would be either downgraded or eliminated. Hence, this results in reluctant behavior by the managers towards the change initiative, creating a cascading attitude on the lower sub-system levels.

6) <u>Resource allocation</u>: Changes on organizations would need allocating sufficient resources to fulfill the change requirements. These resources can be classified into costs, materials, and manpower, where allocating these resources is not easy to be anticipated from the early stages. Therefore, this could be a hindrance to the desired change if there are insufficient resources.

Barriers Impacting Organizational Change Management

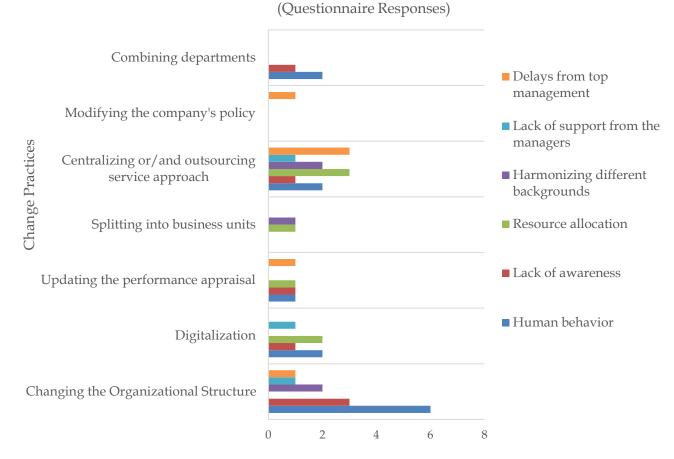


(Interviewees' Responses)

FIGURE 24: Barriers Impacting Organizational Change Management (Interviewees' Responses)

Based on the interviewee's' responses dependent on the change practice, different set of barriers were identified. The results indicate that the "human behavior" aspect is the most common factor between all change practices, as shown in Figure (25). Moreover, the "lack of awareness" is also considered as a critical barrier to changes.

Similarly, the questionnaire results were captured and demonstrate that the "human behavior" is the highest barrier reported to changes, as shown in Figure (25). In addition, the questionnaire results indicate that the second critical barrier is the "lack of awareness" same as mentioned in the interviews, along with the "resource allocation" barrier.

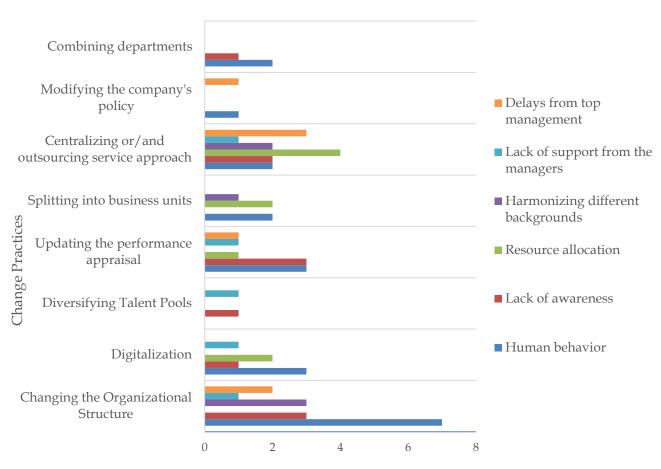


Barriers Impacting Organizational Change Management

FIGURE 25: Barriers Impacting Organizational Change Management (Questionnaire Responses)

From a consolidated perspective as shown in Figure (26), it is analyzed that change practices have different number of barriers that need to be overcome. Certain changes such as "combining departments", "modifying the company's policy" and "diversifying talent pools" face limited types of barriers. On the other hand, other change practices, for instance "centralizing or/and outsourcing service approach", could face numerous barriers which would require additional efforts and more complex mitigation plans.

As already seen in the interviews and questionnaire responses, it is proved that the most common barrier facing changes is "human behavior" followed by "lack of awareness". These two factors relate to the individuals' emotions and knowledge. Accordingly, assessing the cultural aspect is key to ensure successful change implementation, which will be tackled in the following section.



Consolidated Barriers Impacting Organizational Change Management

(Interviewees' & Questionnaire Responses)

FIGURE 26: Consolidated Barriers Impacting the Organizational Change Management

As a contrasting example, in Saudi Arabia's construction market, (Shash, 2020) demonstrated several barriers facing companies during changes. These barriers are classified into critical factors such as: top management support, planning and scheduling, availability of change agent, and communication between management and employees. While the employee's behavior is not considered as a critical factor for change management success.

4.3.3 Impact of the Egyptian's culture on applying changes

This section specifies the Egyptian's culture and behavior impact towards organizational change practices. A question was addressed during the interview asking about the impact of the Egyptian's culture on the changes, thereafter the responses were collected and incorporated into the questionnaire to substantiate the responses from the interviewees. Six manners were addressed and explained hereunder:

- <u>Complacent behavior</u>: refers to the state of being satisfied with the current situation without any need for changes. In addition, this type of behavior results in always questioning why and what is the need for change.
- Overpromising behavior: refers to the act of promising to achieve certain tasks and deliverables, however, the fulfilled deliverables are not to scale to what was promised previously.
- 3) <u>Noncomplying to the company's policy</u>: refers to the behavior of not sticking to the obliged terms and conditions, where one tries to find a way to breach the policy in any way possible or find shortcuts to go around the policy.
- <u>Mistrust:</u> refers to the internal doubt that the employees might experience and pass through due to changes by feeling mistrusted by their manager.
- 5) <u>Fear of change and uncertainty:</u> refers to the behavior of being anxious and insecure about any change in the future as it is unpredictable and can create an unstable state to the individuals.
- 6) <u>Dissatisfaction:</u> refers to unaccepting the changes as it seems inconvenient from the individuals' point of view when compared to the state prior to the change.

Figure (27) elucidates the interviewees' responses, where it indicates that the most three behaviors tend to take place due to changes are the "complacent behavior", "noncomplying to the company's policy", and "fear of change and uncertainty" accounting to 22% each from the total responses.

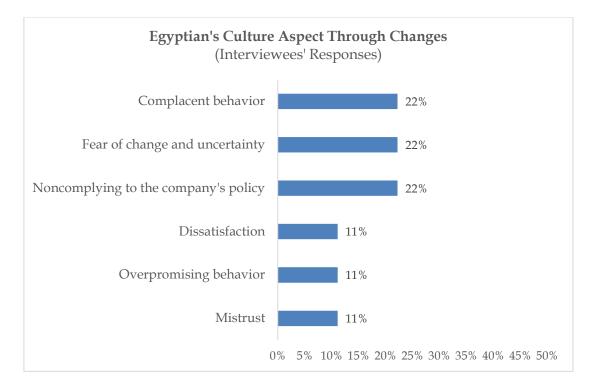


FIGURE 27: Egyptian's Culture Impact on Changes (Interviewees' Responses)

On the other hand, the questionnaire responses shows that the most critical Egyptian's culture behavior due to changes is "fear of change and uncertainty" follow, "mistrust" and "complacent behavior" as shown in Figure (28).

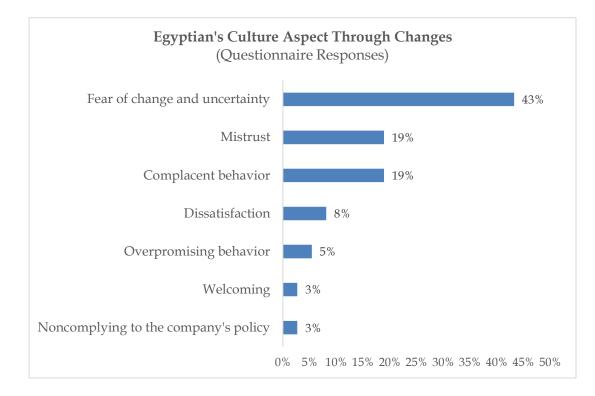


FIGURE 28: Egyptian's Culture Impact on Changes (Questionnaire Responses)

Finally, the consolidated responses from the interviews and questionnaire are gathered and substantiates that the most critical Egyptian's culture behavior towards changes is the "fear of change and uncertainty" and followed by "complacent behavior" and "mistrust" with a weighted percentage 39%, 20%, and 17%, respectively from the total responses as shown in Figure (29).

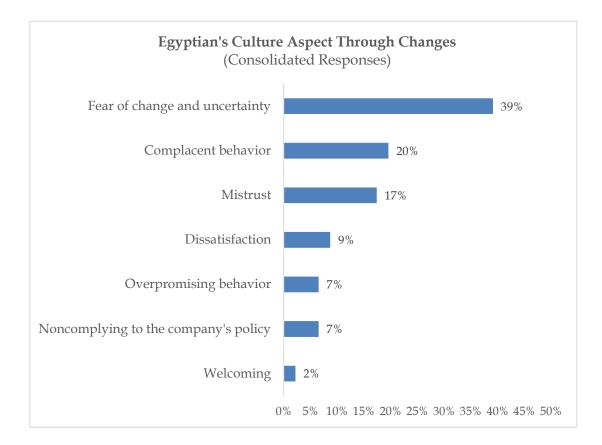


FIGURE 29: Egyptian's Culture Impact on Changes (Consolidated Responses)

4.4 Objective #3: Recommendations for a successful framework

4.4.1 Recommendations Baseline:

The third objective is to represent a successful framework for contracting companies in Egypt to consider when applying changes on the organization. The aim of the framework is to pave the way for the contractors to adopt the changes successfully and achieve their initial targets along with minimizing the drawbacks and risks that might occur during the transformation process. The recommendations on framework are based on three aspects as presented in Figure (30), the three aspects are classified into: 1) previous frameworks as identified from the literature review 2) validated critical barriers to changes as derived from the interviews and questionnaire under objective #2, 3) validated critical Egyptian's culture behaviors as portrayed under objective #2, and 4) recommendations reported from the interviewees/questionnaire.

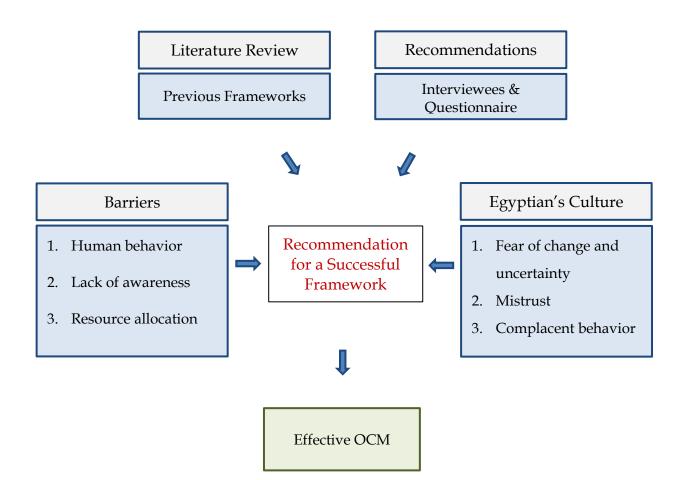
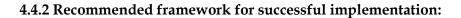


FIGURE 30: Framework Development Methodology

The framework stages presented in the literature review were gathered and summarized into three major steps as illustrated in Figure (31). The first stage is mainly creating the urgency of the change with respect to the reasons and targets, followed by implementing the change as planned and finally to monitor the change ensuring the achievements of the milestones and taking care of any unanticipated circumstances. Thereafter, recommendations are addressed for each stage separately for the sake of overcoming the barriers and the Egyptian's culture, in addition, these recommendations were consolidated and grouped as shown in Figure (32).





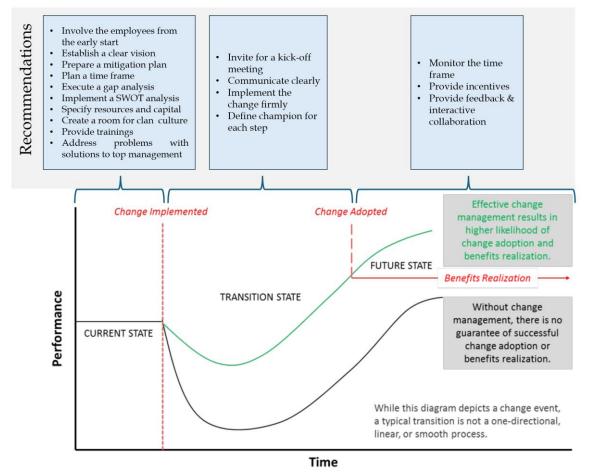


FIGURE 32: Consolidated Recommendations for a Successful Change Management (adapted from The Association of Change Management Professional, 2014)

a) <u>Stage 1: Create</u>

<u>Involve the employees in the early stages</u>: Encouraging the employees to be part of the decision-making process from the early beginning would be an added value, because based on one of the major cultural factors in Egyptians is the fear of change and uncertainty from the changes, therefore by integrating the employees from the start, the company can overcome the employees' fear of change along with their perception of mistrust from the top management.

- <u>Establish a clear vision</u>: It is essential to have a clear vision of what is the next movement or direction since it is the starting point and the basis for the upcoming steps in the change process. This practice will avoid misleading employees while communicating the changes from the top management to the employees. Also, it will contribute to scaling down the complacent behavior of the employees due to having a clear picture with reasons from the start.
- <u>Prepare mitigation plan from the early beginning</u>: Since Egypt's economic environment is very dynamic due to the several devaluations and inflations that were taking place earlier, hence a huge impact is constantly witnessed by the construction market and companies. Therefore, it is recommended to always have different scenarios and alternatives for the changes before implementation including mitigation plans with respect to risk and opportunity assessments.
- <u>Plan time frame for the change</u>: Having a time frame for the change with respect to the kick-off date of the change and setting short and long-term goals is important to ease and support the monitoring stage of the change.
- <u>Execute a gap analysis</u>: It is an essential step before deciding on the change practice to proceed with. Gap analysis supports clarifying the desired performance by differentiating the current performance versus the expected one, hence, assists in defining a clear action plan.
- <u>Implement a SWOT analysis</u>: Defining the strength, weaknesses, opportunities, and threats in addition to the gap analysis are recommended because based on these analyses the companies would have the full understanding of the current position and if a change is needed or not.
- <u>Specify resources and capital:</u> Setting a budget and resources for changes is crucial from the start to avoid any risks to the company's cash flow since changes in some cases could be costly and might need huge resources. Nevertheless, specified resource allocation assessment is recommended for the avoidance of unanticipated risk.

- <u>Create a room for clan culture:</u> The clan culture is classified by having a family and friendship environment between the employees. Creating a room for this culture inside the company would save a lot of effort while implementing the change because this approach likelihood increases the probability of accepting the change from the employees and enhances their trust.
- <u>Provide trainings</u>: Companies need to share knowledge and awareness for the organizational change management topic. Providing trainings for the employees regarding OCM importance and benefits is a good step before implementing changes as one of the main barriers is the employees don't have a solid basis about this topic, especially those with technical background.

b) Stage 2: Implement

- <u>Invite for a kick-off meeting:</u> Inviting for a kick-off meeting to the respective stakeholders, explaining the change practice including the reasons and benefits behind it in addition to illustrating the next steps to have the stakeholders on board.
- <u>Communicate clearly</u>: In addressing the change to the employees, it is crucial to have clear communication from the top management. Not only depending on the kick-off meeting but also on one-on-one meetings between the manager and his employees in explaining the concept of the change including the reasons and benefits. It should also be an ongoing process with fixed routine meetings to make sure everyone is up to date. This step is necessary to overcome the critical reported in this research for the barriers and the impact of the Egyptian's culture.
- <u>Implement the change firmly</u>: When the decision is taken to proceed with the change, it is recommended to apply the change firmly especially towards the barriers unless there is a detrimental unforeseen risk. In this case, adopting the mitigation plan should be an alternative scenario to avoid losses.

c) <u>Stage 3: Monitoring</u>

- <u>Monitor the time frame</u>: Planning the time frame for long and short objectives is stated under the creation stage of the change and it is recommended to put the initial time frame under the radar and examine the objectives progress.
- <u>Provide incentives:</u> It is recommended to provide incentives to employees who are sticking to the change process and doing their best to accommodate the new norm. These incentives will encourage the employees and will have a positive impact on their behavior towards change. On the other hand, for employees deviating from the change process and not accepting it, the company should consider different treatment, for instance applying deductions.
- <u>Provide feedback:</u> This approach is essential since it has several positive results between the managers and the employees. For example, it helps in building a solid relationship and trust which then will overcome several Egyptian's culture factors.

4.4.3 Recommendations validation:

a) Validation Methodology

The purpose of this section is to validate the recommendations for successful change management presented in the previous section to substantiate the results and solutions obtained. The validation process took place by conducting either face-toface or online interviews with anonymous construction experts especially in change management field to advise on the recommendations. First the interview started by asking the interviewees to give a brief introduction on their current role and position, and how many years of experience they have. Second, the interviewees were requested to go through the recommendations and framework concluded based on the solutions towards the outputs gathered from the research. In addition to provide their opinion and thoughts in terms of structurability, implementability and effectiveness. Third, the interviewees' opinions and comments were gathered and incorporated into the original recommendations to have a final version of the recommendations. This final version is then circulated to the interviewees to evaluate the recommendations by implementing a scaling approach. In conclusion, the validation process is as follows:

- **Part 1 Interviewees' Background:** this section demonstrates the interviewees' years of experience and their current role position.
- Part 2 Comments on Recommendations: this section demonstrates the comments and advice addressed by the interviewees on the proposed framework and recommendations.
- **Part 3 Recommendations Evaluation:** this section presents the evaluation carried out by the interviewees on the framework and recommendations.

b) Part 1 - Interviewees' Background:

The interviewees were selected carefully according to certain criteria in terms of their expertise and years of experience with respect to the related topic, as shown in Table (10).

Respondent Code	Years of Experience	Current Job Position
А	20+	Director of project management office
В	35+	Organization development consultant to large contracting company

Table 10: Respondents' Profile

c) Part 2 - Comments on Recommendations:

This section demonstrates the comments and opinions from the respondents on the recommendations, which were then incorporated in the framework. The suggested points of improvements on the recommendations were gathered and listed as follows:

 A clear definition of problems by middle management to top management, including solutions on how to tackle these changes is essential not only to get support from the top management, but also to avoid delays on approval for the change.

- Assign a leader "champion" for each step of the change including defined responsibilities, considering that this champion is not supposed to be from top management but could also be from a lower level. This recommendation would overcome the fear of change and mistrust from the employees during the change.
- Offer incentives for employees during the implementation of the change. These incentives could be for example monetary incentives, better position, employee of the month award, or sharing stocks to the employees to make sure that employees feel secured and safe.
- Monitor the KPIs of the employees during the change, where these KPIs are to be reflected in the performance appraisal and evaluated accordingly.
- Apply interactive collaboration during the implementation phase by setting for instance daily or weekly stand-up meeting for 10 minutes to follow-up and provide alternative opinions from the change champion to the team on the execution of the change.

d) Part 3 - Recommendations Evaluation:

This section demonstrates the evaluation of the recommendations concluded in this research. The interviewees were requested to scale the recommendations from their point of view if it is well-structured, implementable, and effective from 0 (strongly disagree) to 5 (strongly agree). Table (11) shows the interviewees' evaluation:

Rating Criteria	Framework Stages	Respondents' Ratings (Scale: 0 low - 5 high)		Mean
Ũ		Α	В	
Well-structured	Stage 1 "Create"	4	4	
	Stage 2 "Implement"	4	3	39
	Stage 3 "Monitor"	4	4	5.9
	Entire Framework	4	4	

Table 11: Interviewees	'Evaluation or	n The Framework
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T 1 (11	Stage 1 "Create"	4	4	
	Stage 2 "Implement"	4	4	11
Implementable	Stage 3 "Monitor"	4	5	4.1
	Entire Framework	4	4	
Effectiveness	Stage 1 "Create"	4	3	
	Stage 2 "Implement"	4	3	20
	Stage 3 "Monitor"	4	4	5.0
	Entire Framework	4	5	

The mean figures for the rating criteria are derived from the interviewees' responses are (3.9) for structure, (4.1) for the implementation, and (3.8) for the effectiveness of the recommendations. Therefore, the interviewees' responses indicate that the recommendations for a successful framework seem to be valid and accordingly could be utilized by contractors interested in applying organizational changes.

Chapter 5

Conclusion & Future Research

This chapter recapitulates the research findings with respect to the desired objectives as stipulated in the previous chapter, in addition to highlighting the contribution of this research to the current literature. Also, this chapter pinpoints different potential topics for further research.

5.1 Conclusion

Changes either internal or external are inevitable in the construction industry, wherein dealing with these changes attentively and carefully is essential to keep competing in the market and stay alive. Although companies implement organizational change management to adapt to the contingencies and achieve their objectives, they face several barriers during the change process. Not only facing the barriers aspect but also the cultural aspect and behavior. The research objectives are demonstrating the organizational change management implementation and change practices among contractors in Egypt including barriers, benefits and Egyptian's culture aspect. Also to provide construction organizations with recommendations for a successful implementation was developed based on previous literature, experts' advice, tackled barriers, and cultural factors.

To fulfill the objectives of this study, both qualitative and quantitative methods were adopted with a total of 33 participants, concentrating on the contracting companies sector working in Egypt only. First, 9 interviews were conducted to gather insights with respect to the research objectives including questions related to the interviewees' background. After that, these insights were collected and formulated into a questionnaire then circulated to 24 respondents to verify the interviewees' answers.

Regarding the findings for the first objectives for demonstrating the organizational change management implementation in the Egyptian industrial sector, it has been verified that the contracting companies apply OCM to their system, where the results demonstrate that around 82% of the contractors stated that they implement OCM. Moreover, this research revealed the reasons why the contractors initiated the OCM, where nearly 27% of the

contractors reported that the main reason is to improve efficiency, followed by performance and process improvement, with 18% and 14 %, respectively. Additionally, the change practices implemented by the contractors were collected and elucidated, indicating that the most change practice is "changing the organizational structure" by 29%. While three other practices were reported equally with 14% each as follows: "splitting to business units", "digitization", and "centralization or/and outsourcing approach".

For the benefits of applying organizational change management, several benefits were reported and concluded. The findings reveal that different benefits could be achieved by implementing certain change practices, for instance, changing the organizational structures could result in business growth, while introducing digitalized processes and platforms could save time and reduce costs. Moreover, splitting into different business units would not only result in defined identity and know-how but also enhance the connections with different stakeholders in the respective market. On the other hand, barriers that hinder the change process were also explored. Where the results confirm that the most common barrier is the "human behavior" phenomenon expressed in being afraid and not accepting the change, which was reported by 20 contractors out of 33. Also, 11 contractors stated that the "lack of awareness" aspect obstructs the change process, where most of the employees do not have the full knowledge of the organizational change management resulting in always questioning why the need for a change. The remaining responses stipulate different barriers including "resource allocation", "harmonizing different backgrounds", "lack of support from managers", and "delays from the top management due to taking high risk decisions".

Finally, to fulfill the third objective that focuses on the recommendations for a successful organizational change management. Four aspects were gathered and then used as a basis for the recommendation with respect to three of the main change stages that start with creation followed by implementation and monitoring. These four aspects are as follows; 1) previous literature frameworks, 2) most common barriers concluded from the interviews and questionnaire, 3) Egyptian's culture impact throughout the change process, and 4) recommendations reported from the interviews and questionnaire. The concluded recommendations tackle the circumstances that face the changes, for example, involving the employees from the early start of the change and having a clear vision play an important role in reducing the most critical barriers from the Egyptians' culture impact.

For the next stage, implementation of the change stage, it is recommended take the decision firmly in addition to communicate clearly in addressing the change to the respective stakeholders and making sure that they are on board. Finally, regarding the last stage, presented in monitoring the change, the recommendations focus on the monitoring of the change objectives to examine if they are achieved or not, in addition to always giving feedback and providing incentives.

5.2 Contribution to Research

This research elucidates the organizational change management approach taking place in construction contractors working in Egypt. It demonstrates the benefits from applying these changes in addition to the barriers that would incur during the change implementation. This study adds to the current research the Egyptian cultural aspect towards changes along with recommendations to overcome the cultural barriers and obstacles observed. For instance, tackling the fear of change and mistrust barriers by involving the employees from the early beginning to be part of the decision making, also applying interactive collaboration by setting daily or weekly discussion meetings with the team to share ideas and opinions towards the change process. As a result, these provisions would be beneficial to set the bottom line and raise awareness not only to construction contracting companies initiating organizational changes, but also to employees struggling with facing changes.

5.3 Recommendations for Future Research

- The impact of successive organizational change management practices on the contractor is not considered in this research. A further study could be implemented to investigate the impact of successive change practices on targeted objectives.
- Further study can assess the impact of the company's culture on organizational change management in addition whether changing the companies' culture from one type to another can achieve better outcomes.
- Another comparative study can examine other cultures from different countries/regions behavior towards organizational changes. This research

could provide insight on whether the outcomes are similar to the Egyptian culture as mentioned in this research, or they are unique in nature.

- Extending this research to explore the organizational change management adopted by public contractors, consultants and employers either globally or in a specific region is also recommended, as the interviews conducted and the questionnaire were distributed to experts working in private contracting companies in Egypt.
- Further study can measure the level of improvements with quantifiable KPIs.

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Appendix 1: Questionnaire questions

Organizational Change Management; A Contractor's Perspective

MSc in Construction Management Research at AUC

This research focuses on the status, barriers and benefits of organizational change management with focus on contractors in Egypt. The responses of this survey will support establishing a successful framework for contractors to follow when applying organizational changes.

1. What is the name of the contractor you are working at? (optional)

HR
O Business development

- 0 10 < 15
- 0 15 < 20
- 20+

* 4. How many employees are employed in the company?

- C Less than 100
- Between 100 and 1000
- ◯ Greater than 1000

* 5. Did the company apply organizational change management before?

\bigcirc	Yes
\smile	

O No

* 6. What is the change practice the company applied?

- Splitting into business units
- Combining departments
- O Digitalization (e.g. introducing AI, new technology, software, etc.)
- Changing the organizational structure
- Modifying the company's policy
- O Diversifying talent pools (e.g. hiring graduates with different backgrounds)
- O Updating the performance appraisal
- Centralizing or/and outsourcing service approach
- Other (please specify)

* 7. Why did the company apply this change?

Profitability	
Efficiency improvement	
Cost reduction	
Reputation	
Competitive advantage	
Process improvement	
Performance improvement	
Business growth	
Customer requirements	
Other (please specify)	

* 8. What were the benefits from this change practice?

* 9. What were the barriers the company faced while applying the change	Je?
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Delays from top management (due to taking risk decision)	Lack of awareness
Harmonizing different backgrounds	Lack of support from the managers
 Human behavior (e.g. fear of change, resistance to change) 	Resource allocation
Other (please specify)	

 \ast 10. What was the Egyptian culture's impact on the employees' response upon applying the change?

Fear of change and uncertainty	Overpromising behavior
Complacent behavior (e.g. always questioning why)	Noncomplying to the company's policy
Dissatisfaction	Mistrust
Other (please specify)	

11. Any recommendations for a successful change management?