

الجامعة
البريطانية في
دبي



The
British University
in Dubai

**“The Association between Benefits Realization and
Dubai/UAE Infrastructure Development Projects Outcomes”**

العلاقة بين تحقيق الفوائد ونتائج مشاريع البنية التحتية لدبي / الإمارات
العربية المتحدة”

by

AHMAD ABDULRAHMAN ALSHARIF

A dissertation submitted in fulfilment
of the requirements for the degree of
MSc PROJECT MANAGEMENT
at

The British University in Dubai

December 2018

DECLARATION

I warrant that the content of this research is the direct result of my own work and that any use made in it of published or unpublished copyright material falls within the limits permitted by international copyright conventions.

I understand that a copy of my research will be deposited in the University Library for permanent retention.

I hereby agree that the material mentioned above for which I am author and copyright holder may be copied and distributed by The British University in Dubai for the purposes of research, private study or education and that The British University in Dubai may recover from purchasers the costs incurred in such copying and distribution, where appropriate.

I understand that The British University in Dubai may make a digital copy available in the institutional repository.

I understand that I may apply to the University to retain the right to withhold or to restrict access to my thesis for a period which shall not normally exceed four calendar years from the congregation at which the degree is conferred, the length of the period to be specified in the application, together with the precise reasons for making that application.

Signature of the student

COPYRIGHT AND INFORMATION TO USERS

The author whose copyright is declared on the title page of the work has granted to the British University in Dubai the right to lend his/her research work to users of its library and to make partial or single copies for educational and research use.

The author has also granted permission to the University to keep or make a digital copy for similar use and for the purpose of preservation of the work digitally.

Multiple copying of this work for scholarly purposes may be granted by either the author, the Registrar or the Dean only.

Copying for financial gain shall only be allowed with the author's express permission.

Any use of this work in whole or in part shall respect the moral rights of the author to be acknowledged and to reflect in good faith and without detriment the meaning of the content, and the original authorship.

ABSTRACT

Purpose: The objective of this research was to assess association between benefits realization and Dubai/UAE infrastructure development projects outcomes.

Design: To conduct this research, a questionnaire was compiled and distributed to the respondents to collect the data. The objective of the researcher was to formulate the questionnaire quickly and accurately. In addition, a brief test guaranteed the comfort of the participants and the feeling of being at ease. In terms of research segmentation, this included an ethics section and three main sections. The first part of the questionnaire was based on the demographic data of the interviewees. The second section of the questionnaire contained questions about the factors that influence the independent variable, totaling 25 questions. The third part of the questionnaire also raised questions about the factors that influenced the dependent variables of the project (performance) and a similar number of 25 questions.

Findings: The results of the research provided that there is significant positive relationship between Benefits Realization and UAE Infrastructure development project outcomes along with a significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits. Moreover, the study also identified significant positive relationship between UAE Infrastructure development project outcomes and Executing benefits

Research limitations: The main focus of the research was only towards association between benefits realization and infrastructure development projects outcomes in Dubai/UAE. Furthermore, for the purpose of collecting data, only survey questionnaires were being utilized.

Practical Implications: The research revealed a number of individuals who have reviewed the issue of benefits realization. Among them is Levin (2015) who considers benefits to be a critical part in the project cycle. The study reflected upon the complexities surrounding projects imply that team and stakeholders identify the benefits as a key part of organizational projects. The emphasis on benefits necessitates the identification of the gains from a program

Originality: With respect to association between benefits realization and Dubai/UAE infrastructure development projects outcomes, this study is based on existing research and literature.

المُلخَص

الغرض: الهدف من هذا البحث هو تقييم الارتباط بين تحقيق الفوائد ونتائج مشاريع تطوير البنية التحتية في دبي / الإمارات العربية المتحدة.

التصميم: لإجراء هذا البحث ، تم تجميع استبيان وتوزيعه على المستجيبين لجمع البيانات. كان هدف الباحث هو صياغة الاستبيان بسرعة ودقة. بالإضافة إلى ذلك ، تضمن الاختبار القصير سرية المشاركين والشعور بالراحة. من حيث تجزئة البحث ، هناك ثلاثة أقسام رئيسية. الجزء الأول من الاستبيان هو البيانات الديموغرافية للأفراد الذين أجريت معهم المقابلات. كما اختص القسم الثاني من الاستبيان على أسئلة حول العوامل التي تؤثر على المتغير المستقل ، حيث بلغ مجموعها 25 سؤالاً. أيضاً أثار الجزء الثالث من الاستبيان أسئلة حول العوامل التي أثرت على المتغيرات التابعة للمشروع (الأداء) وعددها مماثل مكون من 25 سؤال.

النتائج: أشارت نتائج البحث إلى وجود علاقة إيجابية كبيرة بين نتائج مشروع تحقيق الفوائد وتطوير البنية التحتية لدولة الإمارات العربية المتحدة إلى جانب وجود علاقة إيجابية كبيرة بين نتائج مشروع تطوير البنية التحتية في دولة الإمارات العربية المتحدة وتحديد المنافع. علاوة على ذلك ، حددت الدراسة أيضاً وجود علاقة إيجابية مهمة بين نتائج مشروع تطوير البنية التحتية لدولة الإمارات العربية المتحدة وفوائد التنفيذ.

قيود البحث: كان التركيز الرئيسي للبحوث هو فقط نحو الارتباط بين تحقيق الفوائد ومشروعات تطوير البنية التحتية في دبي / الإمارات العربية المتحدة. بالإضافة إلى ذلك ، لغرض جمع البيانات ، تم استخدام الاستبيانات الخاصة بالمسح فقط.

الآثار العملية: كشف البحث عن عدد من الأفراد الذين قاموا بمراجعة موضوع تحقيق الفوائد. ومن بينهم ليفين (2015) الذي يعتبر المنافع جزءاً مهماً في دورة حياة المشروع. وتعكس الدراسة على التعقيدات المحيطة بالمشاريع التي تشير إلى أن الفريق وأصحاب المصلحة يحددون الفوائد كجزء أساسي من المشاريع التنظيمية. التركيز على الفوائد يتطلب تحديد المكاسب من برنامج المشاريع.

الأصالة: فيما يتعلق بالارتباط بين تحقيق الفوائد ومشروعات تطوير البنية التحتية في دبي / الإمارات العربية المتحدة ، تستند هذه الدراسة إلى أحدث الأبحاث الموجودة.

ACKNOWLEDGMENTS

First of all I would like to thank all Project Management Faculty members and special thanks to my great advisor Professor Halim Boussabaine for helping me and guiding me throughout my dissertation process, his encouragement and assistance have considerably enhanced this dissertation.

Also, I would like to thank my organization and my manager for supporting and motivating me to complete this dissertation.

Finally, I would like to thank my family and my wife for their positive support, encouragement and standing with me when facing difficulties during my process of my dissertation.

DEDICATION

I dedicate this dissertation to my organization, father and my manager whom I consider the supporters of my higher education journey, with their motivation and inspiration I have reached to this educational level.

Table of Contents

1.0 Introduction.....	1
1.1 Introduction.....	1
1.2 Background.....	1
1.3 Research gap.....	3
1.4 Rationale.....	4
1.5 Statement of the Problem.....	4
1.6 Aims and Objectives.....	5
1.7 Hypotheses.....	5
1.8 Research Scope.....	6
1.9 Research questions.....	7
2.0 Literature Review.....	7
2.1 Benefits Realization.....	7
2.1.1 Introduction.....	7
2.1.2 Different Perspectives about Benefits Realization.....	8
2.1.3 Categorization of Benefits Realization.....	10
2.1.4 Benefits Identification.....	11
2.1.5 Benefits Analysis and Planning.....	12
2.1.6 Benefits Delivery.....	13
2.1.7 Benefits Transition and Sustenance.....	13
2.1.8 Benefits Realization in Governmental and Non-Governmental Companies.....	14
2.1.9 Measurement Methods of Benefits Realization.....	14
2.1.10 Benefit Dependency Network.....	15
2.1.11 Factors of Benefit Realization.....	16
2.2 Review of Infrastructure Development Projects Outcomes (in UAE/Dubai).....	17
2.2.1 Introduction.....	17
2.2.2 Project/Program Outcomes in Government and Non-Government Companies.....	18
2.2.3 Types of Outcomes: Economical, Social, and Technological.....	18
2.2.4 Outcomes Reflected from Infrastructure Development Projects in the UAE.....	19
2.2.4.1 Dubai metro by Dubai RTA.....	19
2.2.4.2 Emirates roads master plan by Dubai road and Dubai RTA.....	21
2.2.4.3 Abu Dhabi airport expansion.....	22
2.2.4.4 Etihad railway network by Etihad rail.....	23
2.2.5 Factors of Infrastructure development project outcomes.....	23
2.3 Conceptual Framework & Hypothesis.....	24
2.3.1 Introduction.....	24

2.3.2 Theories and Models	24
2.3.2.1 Identification of benefits.....	25
2.3.2.2 Execution of Benefits	26
2.3.2.3 Sustaining benefits.....	28
3. Conceptual Framework and Hypothesis	29
3.1 Conceptual Framework.....	29
3.2 Hypothesis.....	30
4.0 Research Design and Methodology	31
4.1 Introduction	31
4.2 Research Approach	32
4.3 Research Method and Data Type Collected.....	33
4.4 Data Collection Method	33
4.5 Research and Data Collection Tools and Sampling.....	34
5.0 Research Findings and Analysis	34
5.1 Introduction	34
5.2 Background and Demographic Profile of Respondents	35
5.3 Reliability Test (Cronbach’s Alpha)	36
5.4 Correlation Analysis and Hypothesis Testing	37
5.4. 1 Correlation	37
5.4.2 Hypothesis Testing	38
5.5 Descriptive Analysis: Benefits Realization.....	43
5.6 Descriptive Analysis: UAE Infrastructure Development Project Outcomes	44
6.0 Discussion.....	47
6.1 Background and Overall Aims.....	47
6.2 Association between Benefit Realization and Infrastructure Development Project Outcomes in the UAE	47
6.2.1 Hypothesis Discussion.....	49
7.0 Conclusion and Recommendation	55
7.1 Topic Relevancy.....	55
7.2 Paper Overall Findings.....	56
7.3 Recommendations	59
7.4 Areas for Future Study	61
8.0 References.....	62
9.0 Appendix Survey (Questionnaires).....	66
Section 1: General Information.....	67
Section 2: Benefits Realization.....	68
Section 2: UAE Infrastructure Development Project Outcomes	71

List of Figures

Figure 1: Benefits Management Process (Adopted from BRM (2015)).....	25
Figure 2: Good practices to identify the benefits (Adapted from Madi, 2016)	26
Figure 3: Good Practices to Execute the Benefits (Adapted from Madi, 2016)	27
Figure 4: Good Practices to sustain the benefits (Adapted from Madi, 2016)	28
Figure 5: Proposed Conceptual Framework for this study	30
Figure 6: Perceived degree of Benefit Realization on Infrastructure Projects.....	44
Figure 7: Perceived degree of UAE Infrastructure development project outcomes	46

List of Tables

Table 1: Demographic profile of participants (N=100)	35
Table 2: Cronbach's Alpha for Benefits Realization	37
Table 3: Cronbach's Alpha for UAE Infrastructure Development Project Outcomes	37
Table 4: Correlation between Project Outcomes and Benefits Realization in Project Management.....	38
Table 5: Correlation between Benefits Realization and UAE Infrastructure development project outcomes	39
Table 6: Correlation between UAE Infrastructure development project outcomes and Identifying Benefits	39
Table 7: Correlation between UAE Infrastructure development project outcomes and Executing benefits.....	40
Table 8: Correlation between UAE Infrastructure development project outcomes and Organizational Reputation	41
Table 9: Correlation between UAE Infrastructure development project outcomes and Benefits Delivery.....	42
Table 10: Correlation between UAE Infrastructure development project outcomes and Sustaining Benefits	43

1.0 Introduction

1.1 Introduction

The first section of this research is concerned with the topic that has been chosen by the researcher in order to conduct the research. In this regard, the topic that has been chosen is based upon “The Association between Benefits Realization and Dubai/UAE Infrastructure Development Projects Outcomes”. Based on this, the first chapter of this study will include the background for this research. In addition to this, this chapter will also discuss the gap in the research, the rationale for undertaking the research, and the statement of reflecting the problem. Not only this, the aim and objectives of the study along with the scope of the research and questions to be researched will be discussed.

1.2 Background

The project outcomes, either for government organization or for a non-government organization, describes if the efforts have resulted in any success or not. The outcomes of the process define the success of the strategy. In general practice a result has three things, the impact, the outcome and the output of the process. Outputs are defined as the results found at the end of the process while outcomes are the results that does not need to be found at the very end of the process. They do not seem to be associated with the ending of the project. Outcomes usually emerged after the successful ending of the process. The impact, on the other hand, needs a longer period of time after the completion of the project.

Different construction projects have so far been completed in UAE. Dubai Metro is a good example of these valuable projects. Despite being expected to be a three-line project after completion, two of them have been completed and are fully functional (Staff Report 2017). Trains running in Dubai Metro are fully automatic and driverless. Fully air-conditioned with a door opening at platform level, these trains are running underground the city of Dubai. Forty-

five stations, along with multiple control centers and two depots, have been designed by Aedas Firm for Dubai Metro (Staff Report 2017). The controlling authority of Dubai Metro is Al Ghurair Investment Group.

A short picture of this projects indicates the different aspects of Dubai Metro. For example, Roads and Transport Authority, Dubai is the owner of Dubai Metro. Dubai Metro as the name suggests is located in Dubai and controls the rapid transit system of Dubai. Out of three projected lines, two are fully functional and one is under construction. After its start in 2009, the metro Dubai Metro has acquired almost twenty-nine red lines and twenty green lines train running in-between its stations. Under the operation of Serco Group Dubai Metro has 75Km long tracks and served almost 350000 people last year (Staff Report 2017). This striving project has achieved multiple goals since its foundation. This project is one of its kind in the deserted Arabian Peninsula (Badam, 2017). Dubai Metro is the second largest metro in Arab world, the first one is Cairo Metro.

Almost the primary goal of every project is to serve the society, Dubai metro did the same. It served local and foreigners both. After the start of the services almost ten percent people are continuously using this service for the last two years (Badam 2017). According to the Annual Statistical Report (2013), Dubai Metro had served ten million passengers between September 2009 till February 2010.

Cost issue is the most common issue associated with projects done by Asian government. The same happened to Dubai Metro, the cost of completion differs around 80% from the initial budgeted value (Badam 2017). Although the authorities heading this project claimed this issue to be the outcome of the design change. Moreover, the concern related to the profit income of this project resulted in the justification by the developers. The justification was about the government scheme of subsidizing the fares.

1.3 Research gap

Multiple researchers have so far reviewed benefit realization. Levin (2015), one of those researchers postulated benefits as the key part of the project. He pointed out that the complexities are the one key element that pins stakeholders of the project to identify the benefit as a crucial part of the organization success. The identification of the possible outcomes of the project is due to the importance of the need of benefits. Benefits are important for a job to be done. In order to be successful in a project, tracking the progress along with the monitoring of the progress is also important. However, a gap can be easily identified with respect to the knowledge and literature that is currently available due to which there is a need to conduct research with respect to association between benefits realization and Dubai/UAE infrastructure development projects outcomes.

It is important to draw a plan about benefit realization, so that the project can be implemented in great detail. The analysis of the plan helps in indicating the primary but important performance indicators of the benefits. The metrics list of benefits drawn during the analysis of plan defines the costs with benefits. It is also important to mention the time required by each activity, the needed resources and every other aims and objective of the organization. Usually metrics are interesting documents for the stakeholders of the projects. For example, the identification of the high cost of achieving a target, results in the consideration of the alternative path or objective by the leadership. Therefore, the beneficial realization process is a process in which reconsidering of the strategies and objectives, especially for the ones that have been ignored previously, is to be done. Since the analysis of the project is a continuous process therefore the access for data should be done on timely basis.

1.4 Rationale

With respect to the gap that has been identified upon analysis of the existing research and literature, the rationale of this study that will be undertaken by the researcher is aimed towards creating the link and establishing association between benefits realization and Dubai/UAE infrastructure development projects outcomes.

As per Project Management Institute (2013a, p. 8), the benefits present an area of concern and emphasis. They are seen as results, items, practices, or administrations that offer utility to the firm or organization and the intended interest group. In addition, PMI (2013a) sees the benefits as immediate contributors to overall targets sought after by firms. Further, the institute claims that a few projects have a cluster or a chain of benefits in spite of the fact that it is reliant on their scope. The advancement on existing projects likewise permits the realization of benefits. The latter regularly gives the premise to increasing gains.

1.5 Statement of the Problem

The Project Management Institute (2013) describes the benefits as an area of importance. Benefits are considered as the outcomes, services and products or behaviors that provide organization with effectiveness. The Project Management Institute also notices the direct contribution of benefits in terms of acquiring the strategic goals and objectives by the organization. Organizations some time claims that some projects have a lot of benefits despite the dependency of their scope. The progress of ongoing projects also indicates the benefits. These ongoing progresses also provides foundation for achieving new targets.

Le and Pillutla (2015) in their research study classified the benefits on the basis of the accomplishment. The classification was based on tangible and intangible improvements. The other researcher of the use of benefits of realization suggests that the consideration given to the strategic plan of the organization in contrast with the long-term objectives is important in

achieving the success. In other words, the long-term goals must be aligned along the strategic planning if the organization wants advancement. For the determination of the impact of the program on the community and company, this approach is also important. Tracking of the projects along with the identification of benefits of realization are also required in order to ensure that the result criteria is achieved (Arrivabene 2013). The plan formation and understanding it, is based on measurement frequency, required resources, communication benefits and accountability of people at every stage of the progress.

However, as numerous Infrastructure Development Projects are being undertaken in Dubai, it is necessary to conduct research for association between benefits realization and Dubai and UAE infrastructure development project outcomes, so that the benefits can be utilized in the most effective manner.

1.6 Aims and Objectives

This research aims to identify the association between benefits realization and Dubai and UAE infrastructure development project outcomes. In order to attain the aim of the project this research is based on the following objectives:

- To analyze the association between benefits realization and Dubai/UAE infrastructure development projects outcomes by using qualitative method through exploring current literature and quantitative method by using survey questionnaires.
- To assess data for factor reduction analysis, correlation analysis, and reliability through application of SPSS on information obtained through survey questionnaires.

1.7 Hypotheses

For this study, seven alternative hypotheses are finalized to study the association between the two variables by investigating and testifying the relationship between different factors. Below is the list of predictions:

H1: There is significant positive relationship between Independent Variable: Benefits Realization and Dependent Variable: UAE Infrastructure development project outcomes

H2: There is significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits

H3: There is significant positive relationship between UAE Infrastructure development project outcomes and Executing benefits

H4: There is significant positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation

H5: There is significant positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery

H6: There is significant positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits

H7: Minimal Impact of Moderating variables

1.8 Research Scope

In order to carry this research, a questionnaire will be prepared. This questionnaire will then be distributed to respondents in order to gather the data. The main scope or objective of the researcher is to quickly and effectively compile a questionnaire. Alongside this questionnaire a test should also be held in order to calm the participants. The research

questionnaire will have three main section besides the ethic section. The first section will relate to the demographic study of respondents, the second section will ask interviewees about the factor effecting independent variable. This section will have 25 question. The third section will ask about the factors effecting dependent variables of projects and also have 25 questions.

1.9 Research questions

Q1. What is the significance of benefits delivery and organizational reputation in infrastructure development projects outcomes in the UAE?

Q2. What is the relationship between benefits realization and infrastructure development projects outcomes?

Q3. What are the factors of infrastructure development project outcomes?

2.0 Literature Review

2.1 Benefits Realization

2.1.1 Introduction

Known as a project benefit management, benefits realization represents a way of managing time and resources in the pursuit of anticipated changes. However, similarly to other business concepts, benefits management does not have a single definition since the researchers have been investigating it from different perspectives. For instance, Alnsour (2014) considered benefit realization to be the processes undertaken by organizations in seeking change. In this regard, it is an organizational and management process that enhances the chances of attaining the benefits associated with the adoption of recent technologies. According to Anderson et al. (2015), benefits realization is a process that tracks the conception, initiation, organization, planning, execution, control, and support of change-oriented activities in the hope of achieving

desired outcomes. In turn, Badewi (2016) perceived benefit realization as a collection of processes that are structured to bridge the gap that prevails between the planning and implementation stages of critical projects.

From the above, it is evident that benefits realization is highly related to the results of project management. Any business undertaking is expected to bring profits. Historically, not all projects yielded the desired goals, the efforts to enhance their usefulness lost momentum. To measure the success of a strategy in terms of the agenda, the benefits realization process could be efficient. According to Bakir et al. (2015), the aim of benefits realization is to improve the alignment of project aims and business strategies, the link that is deeply significant in increasing the levels of business success.

Benefits realization, as a concept, entails the altering of action, thinking and management ways so that the benefits following an implementation of a project are realized, according to Desouza et al. (2015). In most cases, the benefits from the execution of a project are never obtained until the end of the implementation process. On this basis, benefits realization means to take a project through all phases to the completion mark while ensuring that the intended outcomes are secured. Critical to the process is planning and monitoring that ensure that any variances are corrected before they derail the process.

2.1.2 Different Perspectives about Benefits Realization

A number of individuals have reviewed the issue of benefits realization. Among them is Levin (2015) who considers benefits to be a critical part in the project cycle. According to the above-mentioned writer, the complexities surrounding projects imply that team and stakeholders identify the benefits as a key part of organizational projects. The emphasis on benefits necessitates the identification of the gains from a program. They are crucial to justify

the undertaking. For a project to attain its anticipated benefits, monitoring and tracking progress before writing a final report are deemed to be crucial.

In his review, Levin (2015) correctly observed that extensive literature exists on the topic of benefits realization. Despite a long history, benefits realization in the field of project management is relatively recent, and it is attributable to the work of many scholars, among them are Svejvig and Andersen (2014). Ojiako et al. (2015) measured the significance of this concept within the project management field by focusing on its connection with value management.

According to Project Management Institute (2013a, p. 8), the benefits present a domain of emphasis. They are viewed as outcomes, products, behaviors, or services that offer utility to the organization and the target audience. Moreover, PMI (2013a) perceives the benefits as direct contributions to strategic objectives pursued by organizations. Further, the organization alleges that some programs have an array or a chain of benefits although it is dependent on their scope. The progress on existing projects also allows the realization of benefits. The latter often provides the basis for gaining additional gains.

Among those who have investigated the use of benefits realization are Lee and Pillutla (2017). In their study, the above-mentioned writers proposed the classification of benefits in terms of success that can be accompanied by both tangible and intangible gains. In addition, Arrivabene (2013) suggested that considering an organization's strategic plan alongside its long-term goals is critical towards the pursuit of success. In other words, the strategic plan must align with long-term goals if they contribute to the advancement of the organization. According to the above-mentioned writer, this approach is also important in evaluating the impact that a program or a project has on an organization and a community where it operates.

In his study, Arrivabene (2013) broadened the concept by indicating that benefits realization and tracking plans must also be prepared in an effort to ensure that agreement on

the realization criteria is reached. Consequently, the author suggested formulating the plan and focusing on the measurement units that enhance the understanding of performance indicators, start dates, measurement frequency, and resources required, benefits communication and those persons who are accountable at each stage of the project.

2.1.3 Categorization of Benefits Realization

According to the Turner (2016), benefits realization is an analytical tool that is extremely important in the management of portfolios. This tool serves in supporting portfolio optimization as well as in facilitating the processes of gains comparison across projects and programs. The benefits are, however, optimal if the selection of approaches to deliver them is done appropriately. Moreover, it is possible to categorize and prioritize benefit realization Project Management Institute (2013b). In this regard, the above-mentioned body proposes, the use of outcome probability analysis, and the results chain increase the chances of realizing goals.

The results chain method concentrates on demonstrating cause-effect relations as inputs are linked to outputs. When using the results chain approach, one is in a position to predict the results in instances when certain tasks are unclear or terminated at certain stages. Furthermore, this method facilitates the identification of gaps and overlaps that need additional attention to ensure that the desired objectives are accomplished. On the other hand, the outcome probability allows a portfolio manager to estimate the results by assuming a success criterion. To attain the objective, the manager needs to list all possible values based on performance indicators in addition to their associated level of confidence. By using cumulative distribution, portfolio managers are able to analyze various metrics and to set realistic targets, thus ensuring greater benefit achievement that reinforces risk mitigation.

2.1.4 Benefits Identification

Benefits identification is one of the initial steps towards the realization of project goals. Clearly, it is a process rather than a one-off undertaking. Despite being the first phase, it proceeds throughout the process since the reviews must be conducted to ascertain if the initially planned activities are being implemented as expected. The reason is in the need to realize as well as to sustain the benefits. According to the Project Management Institute (2015), benefits identification equates to risk management, and it involves stakeholder engagement. The efforts to identify benefit include reviewing previous programs or projects; holding brainstorming sessions; having focused group discussions; and interviewing various stakeholders among other activities. In the ideal scenario, the leadership of an organization appoints a party known as the benefit champion and the project manager to spearhead the program through various ways such as the selection of team members that fulfill the aim of the entity.

The identified gains are categorized. Although a number of methods of carrying it out exist, the four quadrant approach which is analogous to the classification of stakeholders is crucial. According to Serra and Kunc (2015), the method draws a distinction between financial as well as non-financial outcomes. In addition, the approach also differentiates between tangible and non-tangible gains.

Financial tangible benefits encompass returns on investment, acquisition of new markets, reduction in costs, and an increase in net present value (Janssen et al. 2015). Often, the executives from both the public and the private sectors are more interested in these variables than in the intangibles or non-financial outcomes. Non-tangible benefits are defining to the success of organizations since they include various success aspects such as customer satisfaction, staff motivation, strategic alignment, and regulatory compliance. Evidently, non-tangible benefits might be more important since they meet the needs of more

stakeholders, including the customers, the workers, as well as the society in general.

According to Ahern, Leavy, and Byrne (2014), it is possible to translate intangibles into the form of tangibility through the use of customer or worker surveys.

2.1.5 Benefits Analysis and Planning

Mims (2015) identified the second phase as the one which involves benefit analysis and planning. In this stage, it is vital to prepare a benefits realization plan and to facilitate a detailed review of the project being implemented. The analysis offers the metrics as well as the key performance indicators that are useful in the identification and evaluation of every benefit. Benefit metrics list costs and benefits. Warwick Business School (nd) indicated that it is also helpful to specify the time that each activity will take, the required resources, and the role of every result to the organization's strategic objectives. Ideally, metrics are interesting to that parties that hold a stake in a project. For instance, when the cost of achieving a benefit is huge, the leadership needs to explore alternative ways or abandon the objective. Hence, rethinking the strategies that might be subsequently neglected is also a part of the benefits realization process. Due to the fact that the analysis is a continuous exercise, it is essential to access data rapidly, which helps in repositioning portfolios, projects, or programs.

Preparing the benefits realization plan takes cognizance of the idea that some identified benefits might be excluded since they might be costly to achieve. However, based on best practices, the engagement of all key stakeholders in the preparation of the final list of gains is essential because it builds trust and ownership, the aspects that are both important towards garnering support for the project implementation as well as sustenance (Nanthagopan, Williams & Page 2016). The benefits realization plan varies at various sections, being different at the project, program, or portfolio levels, although the objective

remains the same. It aims to provide guidance towards the realization of benefits. It also serves as a baseline plan across the three components listed above. Upon completion, it is helpful to update the benefits register to reintroduce any omissions or to expunge unnecessary expectations.

2.1.6 Benefits Delivery

Benefits delivery is the subsequent step in the process, and it rests on the idea that benefits are realized upon the completion of a project. However, when handling a program, it must be noted that the deliverables are realized at an incremental perspective (Breese et al. 2016). Delivery is dependent on the nature of the outcome. However, it is different for products and services. For instance, service-oriented programs generate benefits gradually while for products, the benefit is realized at the closure of the project.

With regards to the portfolio, delivery is also viewed as an incremental process hence requires a roadmap to demonstrate the status of benefits by linking them to strategic objectives and goals of an entity. The approach permits executives to streamline program or project delivery as they are able to monitor, adjust and/or terminate required processes or activities (Breese, et al. 2016). To be successful, the project champion needs to work closely with the team, manager, and other leaders. In addition, paying attention to external variables is integral to the successful execution of programs. It is also important to update the benefit metrics and register.

2.1.7 Benefits Transition and Sustenance

The preparation of a project transition plan is equally beneficial as it guides project managers and stakeholders towards the project completion (Nanthagopan, Williams & Page 2016). The involvement of stakeholders in the process ensures that everybody participates

equally in the project and could receive the prescribed benefits. As in the previous sections, benefits transition and sustenance comprises updating the benefits register so that it could be archived for future reference. However, the archiving does not imply that the benefits tracking will stop, especially when a project belongs to a private client.

The step is equally crucial as the previous ones. Ideally, projects or programs are perceived as targeting long-term benefits to stakeholders. Although they might not last forever, the longer they prosper, the more desirable they are (Svejvig & Andersen, 2014). In this regard, the manager is obligated to write a sustenance plan in an effort to enhance long-term activities. In addition, it is noted that sponsors of programs demand a broader degree of success conceptualization.

2.1.8 Benefits Realization in Governmental and Non-Governmental Companies

Since its emergence, benefits realization has gained popularity. The organizations continue to employ this method as it corresponds to both the private and public sectors across different countries. For instance, in the UAE and the UK, benefits realization is a common practice (Orchill 2018). In the case of the UK, the government has adopted benefits realization as a major part of its program management process under the Managing Successful Programs Initiative. The powerfulness is further demonstrated across various programs such as Abu Dhabi Metro by Musanadah, Abu Dhabi Airport Expansion by Abu Dhabi Airport Company.

2.1.9 Measurement Methods of Benefits Realization

Being the part of project management, benefits realization has distinct principles, responsibilities, processes, roles, and deliverables (Murray, 2011). The management based on this method encompasses identification, planning, and reviewing of the anticipated gains

(Svejvig&Andersen 2014). Similarly, project managers operate in both a timely and reliable manner. Benefits realization ensures that entities remain to be focused on the key goals outlined previously.

The outcomes of the benefits realization process include those changes that are critical to the major stakeholders. They are either strategic or non-strategic. Undoubtedly, benefits must have a positive effect on the organization that is undertaking a change initiative (Freidi 2014). In this regard, benefits are measured according to positive impact resulted from changes. On the other hand, a non-benefit is viewed as a measurable that defines negative change effect (Gera 2013). To measure benefits, organizations consider a number of options. Among them is the use of benefit graphs and maps. The diagrams depict what is being attained during the different stages of the project. They allow understanding what influences the trend and how to make it successful.

2.1.10 Benefit Dependency Network

A benefit dependency network diagram is essential to benefits realization process. The network comprises five different aspects. Investment objectives, benefits, business changes, enabling changes, and IT/IS enablers are the components of the graph (Germain & McGuire 2014). Investment objectives show the project focus as well as its connection to the investment drivers. On the other hand, benefits are the advantages for the team involved in the project. Business changes show the alterations that are required for the benefits to be realized. Regarding change enablers, reference is made to those alterations deemed crucial for the desired change to occur. Finally, IT relates to the Information Technology component that is necessary to support the modern change process.

Another measurement tool that is applied is the Benefit Dependency Map which consists of the bounding objective, end benefit, intermediate benefit, business change, and

enabler (Latif & Williams 2017). First, in this map, the bounding objective is similar to the investment objective as it encapsulates the measurable goals that support the overall vision. Secondly, the end benefit relates to independent gains linked to the objectives. Thirdly, intermediate objectives are those outcomes that are beneficial to the stakeholders. Business changes are the shifts that happen in the business environment as a result of the initiative. In the end, the enabler refers to the items bought to facilitate the change.

The Results Chain is also helpful to measure benefit realization. Unlike the previous two approaches, this approach comprises four tasks, namely outcome, initiative, contribution and assumption (Latif & Williams 2017). The outcome shows the target result while the initiative is the activity that is undertaken to realize the change. The contribution is the measure of how the initiative contributes to the expected outcome. Finally, the assumption involves those inputs believed to be necessary to achieve goals although the entity in question might lack control over them.

2.1.11 Factors of Benefit Realization

Benefit realization is having set of various factors. These include benefit identification, benefits analysis and planning, benefits delivery, benefits transition and sustenance. The identification issues include peoples' views about the constituents of the gains from projects. According to the literature review, they also derive from what stakeholders rank as important. Planning consists of the approaches used to implement the projects. Delivery is also important because the manner in which the project is implemented affects the community's perspective on the benefits. Finally, a project is evaluated in terms of how the gains are maintained. A project needs to last long so that it could be deemed to be successful. The following are list of factors that are included in benefit realization processes:

- Timelines taken
- Budget: cost

- Scope
- Quality
- Outputs: new products/ services
- Actual gains: value derived by sponsor and other stakeholders (PMI Thought Leadership Series, nd).

2.2 Review of Infrastructure Development Projects Outcomes (in UAE/Dubai)

2.2.1 Introduction

The relevancy of benefits realization to strategy formulation in government and non-government companies is critical. In fact, benefits realization has become a powerful tool in both private and public sectors. As a result, governmental and non-governmental entities are now increasingly relying on it as a way of assessing the value of projects or programs before their implementation. Undoubtedly, non-governmental enterprises have goals and targets to meet. Moreover, public sector organizations have a mandate to address certain issues. Owing to the growing awareness about delivery and the results orientation among the members of the public sector, its entities regard the benefits realization approach to be highly advantageous for their performance. The strength of the tool lies in its capacity to identify, plan, and make adjustments to programs. With the help of tracking project in different stages, benefits realization has become a powerful tool not only to non-governmental organizations but also to public enterprises.

2.2.2 Project/Program Outcomes in Government and Non-Government Companies

For both governmental and non-governmental entities, project outcomes define whether the efforts bring any benefits for the parties involved in the process. The results display the success of the strategy. In practice, results comprise output, outcome, and impact. Whereas outputs are the immediate results emerged after the execution of certain activities, outcomes are those aspects that do not follow the closure of the project. However, this type of results emerges after the successful implementation of a project. This entails the change that accompanies the project activities. On the contrary, the impact is long-term perspective which might not be realized even during the lifecycle of the program.

2.2.3 Types of Outcomes: Economical, Social, and Technological

From a bigger perspective, project outcomes are related to economic, social, and technical areas. Economic outcomes are those gains that influence the income of people while social outcomes are the benefits related to social life (Muszynska 2015). For instance, improved social welfare might be viewed from both economic and social angles. Technological outcomes belong to IT-related issues. In practice, these outcomes have both economic and social effect. For instance, a project that leads to the expansion of Internet connectivity affects economic gains for those who might deploy it to boost their businesses and increases virtual interactivity among the people. It is possible to predefine the possible outcomes for a particular case.

The construction of infrastructure projects results in the movement of goods and services across the UAE. In this case, reference is made to the construction of roads or transport related facilities. Once a road, railway, or port is built, the logistic becomes easier. Consequently, people travel, goods move, and business improves significantly. Hence, the initial outcome is the increase in the movement capacity. In addition, local people might buy more vehicles since they have better roads .As a consequence, external investors might become

more attracted to the country. In this regard, the inflow of foreign investors will increase. Therefore, both external and internal parties will benefit from the well-organized strategy.

Often, non-governmental organizations have the habit of investing in socially-related activities. Consequently, they participate in areas such as health and education. The entities build hospitals/health facilities and schools. From their activities, the immediate outcome could be the increase in the physical facilities. Thus, the number of schools and health centers rise resulting from the construction of new institutions in various areas. Another outcome is the increase in the number of individuals benefiting from the new facilities. In particular, more students could be able to study. Subsequently, the number of individuals with high literacy levels soars. In the case of the construction of health facilities, the number of people benefiting from the health with care services also grows. A subsequent outcome is a decline in the number of ill people in the society or a rise in the health conditions of the people living in the UAE.

It is evident that construction projects have various outcomes. The variance is dependent on the nature of a program or a project (Nenni et al. 2014). However, as previously stated, outcomes are short-term results that follow the execution of a program. Regardless of the structure of the entity, whether it is governmental or non-governmental, project outcomes greatly influence the perception of the people regarding success.

2.2.4 Outcomes Reflected from Infrastructure Development Projects in the UAE

2.2.4.1 Dubai metro by Dubai RTA

A number of construction projects were successfully undertaken and completed in the UAE. One of those highly beneficial projects is the Dubai Metro. Three lines are expected to be fully operational although only two of them are complete and operational; they will run in the underground of the city of Dubai (Staff Report 2017). Trains operating under the program are automated and driverless. The trains are also air-conditioned. Moreover, they have platform edge openings. The Aedas firm is the entity that designed forty-five stations that

Metro trains operate in (Staff Report 2017). Besides, the facilities have two depots and control centers. However, it is the Al Ghurair Investment Group that took charge of the Metro railway.

A snapshot of the facility highlights an array of critical aspects of the project. For instance, the project owner is the Roads and Transport Authority. Its location is in Dubai and it handles rapid transit. Currently, two lines are operational while the third one is under construction. Besides, the facility's stations include twenty-nine red and twenty green lines. The metro trains, which commenced operating in 2009, served over 350,000 riders in 2017. Operated by the Serco Group, the railway covers roughly 75 KMs (Staff Report 2017). The project is ambitious, and it has yielded a number of outcomes since its inception. Prominently, the project has introduced the first modern train to Dubai, the first of its kind across the Arabian Peninsula (Badam 2017). Being behind the Cairo Metro, the Dubai Metro trains rank as the second largest across the entire Arab world.

As in most construction projects, delivering value to society is the primary objective. Thus, it is evident that the Dubai Metro serves both locals and foreigners. According to Badam (2017), nearly ten percent (100,000) of the people of Dubai have been using the services for two years from the commencement of operations. Between September 2009 and February 2010, the Dubai Metro railways had served 10 million commuters (RTA Annual Statistical Report 2013).

When the leader of Dubai announced the commencement of the construction of Dubai Metro, one of the expected outcomes was to attract up to 15 million visitors to the city by the year 2010 (RTA Annual Statistical Report 2013). Due to the rapid growth of the city's population, the train services were also anticipated to enhance the technological development across the UAE. Another major outcome would be the reduction of the severe traffic that characterized the city. Apart from resolving various transport concerns, the services would

also provide a new platform for the growth and development of the Dubai economy.

Similarly to many other government projects from Asia, the issue of cost emerged during its implementation. In particular, the costs differed for 80% from the initial budget (Badam 2017). However, Dubai authorities justified the variation in price due to the changes in project design. Further, concerns about the profitability of the services arose. The issue was downplayed since the developers of the plan opined that the government plan to subsidize the fares meant that no profits would be generated.

2.2.4.2 Emirates roads master plan by Dubai road and Dubai RTA

Besides railway networks, roads are also receiving attention by the authorities in the UAE. From the previous section which covered the Metro services, it became evident that congestion is a problem in the UAE. Consequently, the authorities are willing to expand the road system in order to open the Emirates to the world. According to Badam (2017), lowering traffic and connecting the city of Dubai to the North were the primary drivers of the master plan road project. As a result, transport authorities sought to ease those problems and attract visitors. Citing Al Hammadi, the director of the Federal Roads Department, Badam (2017) indicates that the master plan was designed in 2018. According to the director, the UAE has a common goal of developing its networks and being able to respond to the increasing demands in the area.

The road project is projected to involve the construction of a seven-lane bridge with the capacity of serving 18,000 vehicles per hour. The bridge was supposed to connect all the possible directions. Previously, motorists were concerned about the poor design of the Emirates Road at the Maliha intersection because six lanes dropped into three or two lanes. The new project would solve that concern by introducing a nine-lane road that would turn into a seven-lane bridge.

From the above-mentioned plan, the project outcomes can be easily contemplated. Clearly, upon completion, the project will reduce travel time significantly, thus easing the movement of people and goods. In addition, given that the Emirates Road is a major linking line between the North and the South, the completion of the project will provide a new platform for the expansion of economic exchanges between the two regions. Besides, Badam (2017) contends that the bridge would also yield health benefits since individuals who suffer from stress-related issues while stuck in traffic would face fewer problems while traveling. Moreover, time waste would fall, and the collisions because of slow movements at the interchanges would be avoided.

2.2.4.3 Abu Dhabi airport expansion

The Abu Dhabi Airport expansion project reflects another ambitious undertaking in the UAE. Based on the report prepared by Zaatari (2017), the project entailed the construction of a new terminal that would have the capacity of up to 84 million passengers in a span of a year. At the same time, the mega-project would facilitate the handling of the cargo of up to 19,200 baggage pieces in an hour (Zaatari 2017). In addition, the airport facility would be able to provide up to 35,000 square meters for duty-free shops and entertainment spots (Zaatari 2017). Besides providing the above services, the new facility would also boost iconic, immense, and state-of-the-art status.

The projects of this magnitude, without a doubt, promise many benefits or positive outcomes. To begin with, the project stands in a good position of boosting the aviation industry in the UAE. Not only would this project increase the flow of air traffic to the region, but also it would enhance the economy of the area and lead to the creation of many jobs. Apart from the physical attributes, the facility also promises to offer top services to customers as a part of the efforts to attract more people to use it. Hence, it is evident that the benefits

from the project will include increased air travel, handling of more cargo, opening the Middle East region, improving the business, and paving the way for economic growth and development. Other outcomes would be related to the enhancement of the status of the UAE and the Middle East region at a global level. If the airport is used to capacity, attendant benefits will expand and elevate the living standards of the people of the UAE through job creation and generation of government revenue.

2.2.4.4 Etihad railway network by Etihad rail

Founded in 2009, Etihad Rail manages the operations, construction, and development of the UAE railway network. The network encompasses 1,200 KMs of a rail line that is being constructed in phases. The main intention is to link centers considered to be of crucial significance for the UAE economy. Besides being beneficial to the UAE, the rail is anticipated to become the network that would also play a pivotal economic role to the Gulf Cooperation Council (GCC).

Commercial activities began in 2016. Among the major gains expected from the railway include its role towards the realization of Vision 2030. By connecting the UAE's principal centers, the rail network will spur further expansion in commercial activities. Besides economic gains, the rail is also set to allow the realization of environmental gains owing to its low pollution levels in comparison to those emitted by Lorries.

2.2.5 Factors of Infrastructure development project outcomes

The main Infrastructure development project outcomes include enhanced logistics, increased volume of goods movement, improved living standards, more visitors coming to the UAE, reduced travel time, low levels of stress, and increased revenue to authorities. The following factors are considered critical for this study.

- Travel duration- reduction in time

- Visitors' attraction – increase in number of visitors
- Ease of doing business – improvement in business environment
- Economic improvement – enhancement of economic opportunities
- Social standards – improvement in living standards
- Environment- level of pollution or its absence
- Employment- increase in job opportunities

2.3 Conceptual Framework& Hypothesis

2.3.1 Introduction

A conceptual framework plays an essential function in the research. According to ReSearCher (2017), the tool is critical because it links the researcher's ideas, helps to establish the boundaries, and thus guides its execution. Other scholars, such as Badewi and Shehab (2016), view the conceptual framework as being highly significant because it serves as the basis for the investigation of the research problem. The following chapter offers the assessment of benefits realization and project outcomes.

2.3.2 Theories and Models

Researchers have devised many approaches to test the relationships between variables. For instance, Petro and Gardiner (2015) provided a useful framework. In their study, the researchers investigated project outcomes based on their levels of effectiveness. From the research as mentioned above, it became apparent that project outcomes are related to various aspects such as benefit identification, project planning, execution, monitoring, and evaluation. Hence, the extent to which the factors addressed determines the benefits yielded.



Figure 1: Benefits Management Process (Adopted from BRM (2015))

From the above model, it is evident that benefit realization goes through a systematic process. The specific systematic process includes several types of information related to the benefits realization for different organizations. It consists of several phases including benefits identification, benefits realization and benefits execution. These phases consist of every possible aspect covered by the different researchers regarding the benefits realization. As we discuss the different key factors of conceptual framework by the well-known researchers like Madi who write the research article in 2015 which was later published by the project management institute in California. The key factors description is as follows:

2.3.2.1 Identification of benefits

It is the way toward distinguishing the benefits that could not be ignored during the whole process. It is the first and most critical advance in building up the benefits system. As indicated by Madi (2016), the Identification of benefits is fundamental for each association. He has given a few practices for the identification of interests in Project administration.



Figure 2: Good practices to identify the benefits (Adapted from Madi, 2016)

The figure shows all of the good practices that are important to identify the benefits in project management in order to develop the framework.

According to Serra, an award-winning student in benefit realization management (BRM) in Brazil reflected on some of the key practices according to her research while writing her paper in 2012. The practices that she measured for identifying the benefits are as follows:

- Each expected result must be characterized.
- Make sure that the project result will provide the enough benefit to an organization.
- Project results strengthen the accomplishment of obviously characterized key destinations (Serra, 2012).
- Expected produces, results and advantages are shown in the business case and recognized toward the start of the task (Serra, 2012).

2.3.2.2 Execution of Benefits

It incorporates the majority of the practices that should be sorted out with the end goal to continue with the recognized benefits. This is the phase of dealing with the majority of the

essential identified components which should be tended to with the end goal to accomplish the benefits for an effort. The benefits should be executed legally as great administration and characterizing a suitable strategy. Yousaf Madi in 2016 recognized the majority of the great practices that are fundamental for benefits execution and summed them up in the figure which is demonstrated as follows:



Figure 3: Good Practices to Execute the Benefits (Adapted from Madi, 2016)

These are all of the good practices that are collected by the professor Madi in his research. He has shown all of the factors that need to be addressed very carefully because either they could affect a project on an enterprise level or it can increase the profit value. In either case, it's a benefit.

According to the Serra, she also discussed these factors in her study. What she mentioned to obtain the maximum result in executing the benefits are as follows:

- The identified profits and benefits must be checked in time within each phase of project to ensure the quality and standard maintenance.
- Project audits are oftentimes conveyed to the partners and in addition, their requirements are every now and again reassessed (Serra, 2012).
- Task results must behold to the normal results in business cases.

2.3.2.3 Sustaining benefits

It is the practice of overlooking the benefits at the project end after going through every process. It is a great practice in benefits realization. Professor Madi explained it in a way that it is the most basic piece of the system since it enables the undertaking to ignore those practices that they utilized in executing the benefits which bring about accomplishing the arranged benefits for the association.

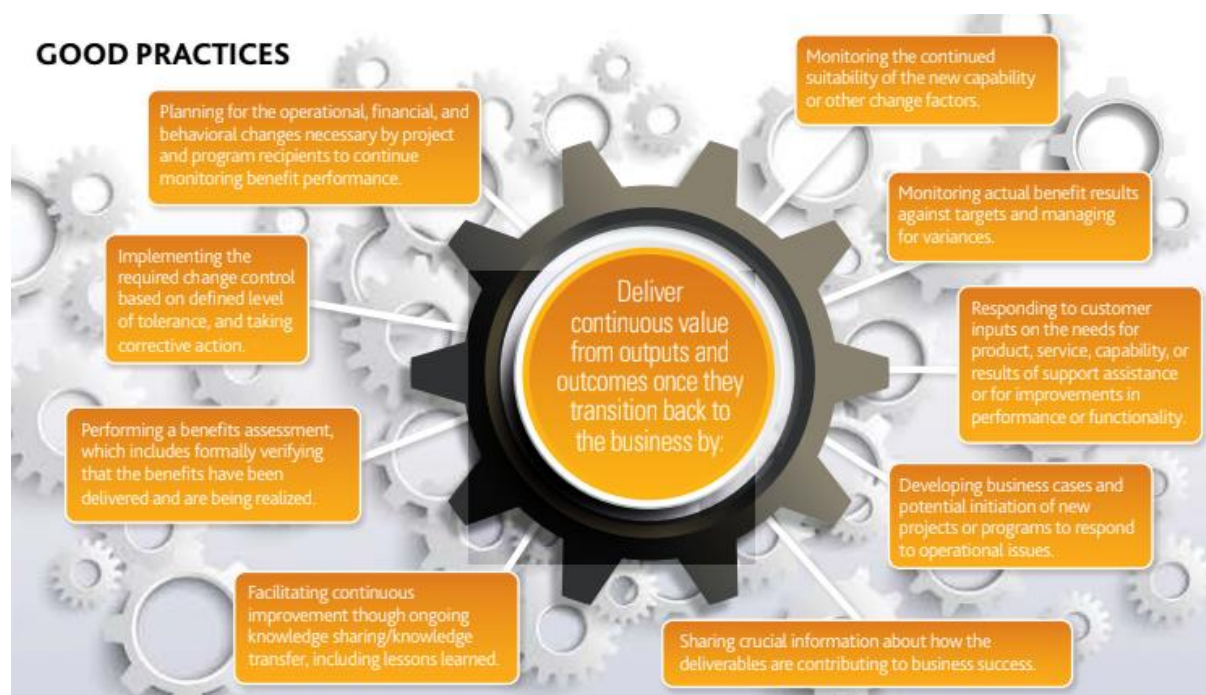


Figure 4: Good Practices to sustain the benefits (Adapted from Madi, 2016)

These are the best practices that are collected by the Professor Madi in his research study. In continuing to these practices, the Serra mentioned in her study that some of the practices are more important while going towards the ending of the project. The baseline factors are as follows:

- Each and every practice and activity of the project is overlooked and aligned with all of its identified benefits to obtain the difference in identification and execution, if there is any.

- Project outcomes are monitored by the organization after project closure in order to ensure the achievement of all benefits expected in the business case (Serra, 2012).
- The organization works in a pre-planned and regular way to integrate project outputs into the business routine from the first delivery to the project's closure (Serra, 2012).

These are the practices that are defined in the frame work described in the figure 1. The other figures are some of the best practices that are required to maintain the good framework to obtain the maximum profit and reputation from the project with the help of research studies of Professor Madi and Serra in 2016 and 2012. Basically, as it is mentioned that it is all a systematic process. So, this is the systematic process from different research studies that is necessary for the framework.

3. Conceptual Framework and Hypothesis

3.1 Conceptual Framework

Some factors affect the project outcomes. Although these factors vary, a significant proportion remains relatively similar across many projects. They define the development of the conceptual framework of the study. Every element plays a critical part in affecting the overall performance of projects and, subsequently, the benefits that accrue from them.

According to the observations made by Freidi (2014), the standardization of technicalities and policies is necessary to ensure that projects bring positive results.

Similarly, to the previous writer, Chin and Spowage (2012) indicated that the benefits realization methodology has a significant impact on the project. House (2014) and Oehmen (2015) commented on the complex nature of projects and cited culture as being critical in the process of generating desired outcomes. In his turn, Nanthagopan, Williams and Page (2016) underscored the role of trust among stakeholders as being crucial in the execution of project activities. Based on the above, the performance of construction projects regarding benefits is

dependent on the policies, standards, methodological approaches, complexity, culture, synchronicity, stakeholder involvement as well as the level of trust among participants.

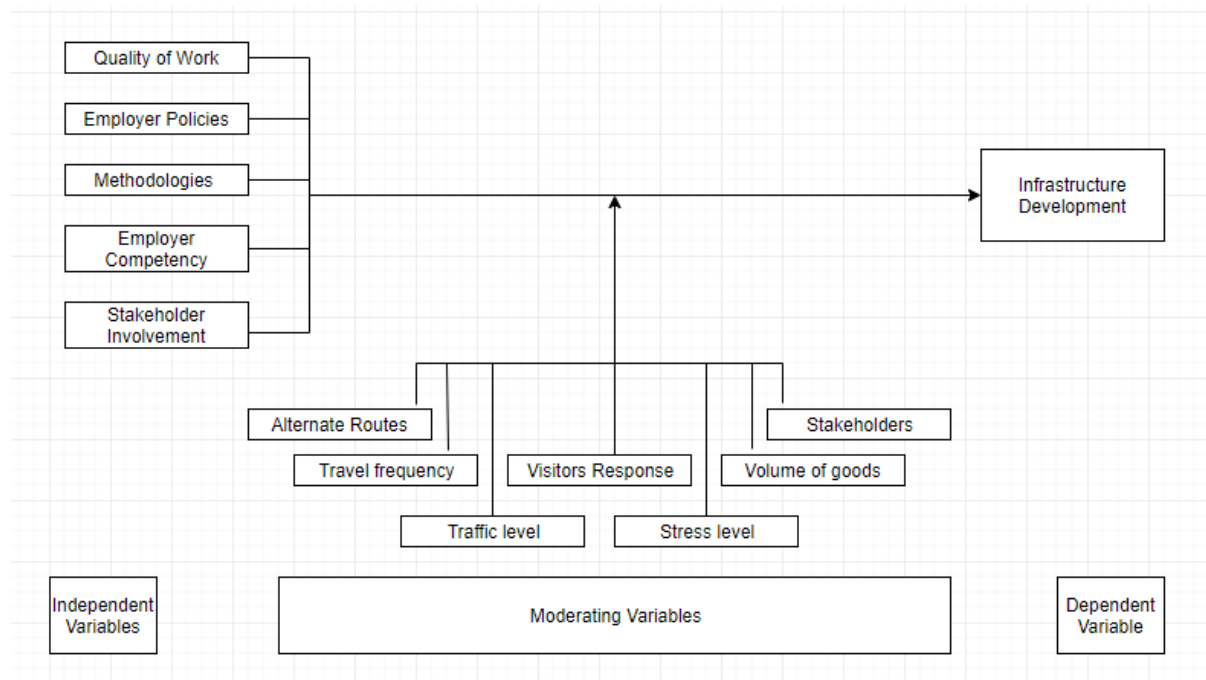


Figure 5: Proposed Conceptual Framework for this study

3.2 Hypothesis

As shown in the Conceptual framework, there are five factors for each variable. For this study, seven alternative hypotheses are finalized to study the association between the two variables by investigating and testifying the relationship between different factors. Below is the list of predictions:

H1: There is significant positive relationship between Independent Variable: Benefits

Realization and Dependent Variable: UAE Infrastructure development project outcomes

H2: There is significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits

H3: There is significant positive relationship between UAE Infrastructure development project outcomes and Executing benefits

H4: There is significant positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation

H5: There is significant positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery

H6: There is significant positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits

H7: Minimal Impact of Moderating variables

4.0 Research Design and Methodology

4.1 Introduction

The preceding chapter briefed about this research papers subject matter, reviewed related literature and estimated criteria for research on its basis. The different relationships observed in the literature were elaborated. This section will explain the methodology of the research and discuss the collection of data, its analysis and show how it will be analyzed in light of the research hypothesis set for this thesis.

Methodology is described as the sequencing of research techniques and tools and their executions which results in knowledge or answers to the hypothesis of the research (Goddard & Melville 2004). The focus of main research question is derived from the global hypothesis state below.

Moreover, a survey questionnaire was prepared and was distributed to the targeted respondents. These questionnaires were concise and precise to the point to serve ease of respondents' understanding. Further, having a brief survey questionnaire ensures that the participants' comfort and convenience. The survey contains three main sections. The first section contains the demographic of the respondents which reserve the sample general information, the second section contains questions related to factors of independent variable (Benefits Realization) with number of 25 questions, and third section contains questions

related to factors of dependent variable (UAE Infrastructure development project outcomes) with number of 25 questions. Moreover, the survey was online based distribution that was distributed to a number of 300 participants. The response rate was good as 100 responses out of 300 are received as on November 10, 2018. This was the time that the researcher decided to start analyzing with the collected data due to the time constraints.

4.2 Research Approach

The process of driving data based on philosophy and the type of analysis carried out in research is termed as Epistemology (Creswell 2014). In Epistemology of research, an idea is discussed, namely positivism. It defines facts which are observed freely from the researchers' subjective opinion, which are established realities and are unbiased (Gall et al. 2003). Positivist research is based on the gathering of data first hand and its analysis. This type of research is carried out by executing a survey from a targeted sample audience and carrying out quantitative analysis of the collected data.

Another idea of Epistemology is Realism, which works independently of the researcher's interpretation and which recognizes fixed reality of situations which make up the evidences (Gall et al. 1996). Mathematical models and analysis of data are the bases of quantitative research which helps in either approving or disapproving the research question after evaluating scientific facts (Kratwohl 2004). As these methods study the assumed relationships among numerous variables of research, bias is eliminated. To arrive at this conclusion, data are collected by means of questionnaire and quantitative analysis are carried out (Sarantakos 2005). In order to answer the research questions proposed for this research, it can be concluded to collect data using survey and quantitative analysis to be carried out on the collected data.

4.3 Research Method and Data Type Collected

To achieve the research goals set out by this research, carrying out a survey and analyzing the data using quantitative analysis will be used. Since our target population are UAE infrastructure projects, we will be collecting data from project manager and consultants working on infrastructure development projects

The research sample consisted of employees from both government and non-government organization that are part of infrastructure projects being carried out in the UAE. This will also eliminate the bias as the data will be collected from both types of organizations working in infrastructure projects. Our sample also includes employees from a range of positions and seniority levels within the organization such as program managers and projects managers and all other project team members. This will further enhance the research and provide a better understanding of the association between benefits realization and UAE infrastructure development projects. Data gathering and collection will use Google forms and emails sent with attached link to all the respondents.

4.4 Data Collection Method

A survey was sent to a sample of 300 potential respondents. Out of the 300 selected sample there were 100 respondents. Data from these 100 respondents were used to provide support of the positive correlation among Benefits Realization as Independent Variable and UAE Infrastructure development project outcomes as dependent variable. The research was carried in companies working in the UAE construction industry. The companies choosing for this research were an international and local contracting company, a worldwide project/design management consultancy and a local developer of projects. This helped in gathering a spectrum of opinions from different companies working in the same industry and work as a team to make a project successful. If the research would had focused only on one type of company, the result would had been biased and only would had been limited to that

type of company. Since these companies are different in the type of work they carryout in infrastructure projects, their priorities, perspectives and goals vary from each other and thus provide a broad picture for our research and makes it more generalize and applicable to a vast range of company types. This will help us in accepting the global hypothesis of the association between benefits realization and Dubai and UAE infrastructure development project outcomes.

4.5 Research and Data Collection Tools and Sampling

This section utilizes statistical analysis tool SPSS on the collected data from the surveys. The analysis includes demographic participation of males and females for this research. The analysis provides the respondents professional roles contribution to the survey which will be consultants, client and client representative and contractors. The analysis provides the work experience with respect to number of respondents. The analyses carry out the reliability analysis to assess the degree of consistency in the collected answers to survey questions. The independent variable and dependent variable correlation will be analyzed to measure the strength and direction of the assumed relationship. This will also help in accepting or rejecting the hypothesis.

5.0 Research Findings and Analysis

5.1 Introduction

The next phase after obtaining the distributed questionnaire results from the respondents was to analyse the gathered data using SPSS. The first part of the data analysis presents a summary of demographic data of the sample. After that, a Cronbach alpha test (factor Reliability analysis) was completed in order to test the consistency and reliability of the obtained data. In order to determine the relationship between Independent Variable: Benefits Realization and Dependent Variable: UAE Infrastructure development project outcomes, a

correlation analysis was conducted. In order to then further analyse the survey data, a correlational analysis was conducted to determine the strength and direction of the relationship between the independent and the dependent variables, and to test the stated hypotheses. In the following research findings, the independent variables are Identifying benefits, Executing benefits, Organizational Reputation, Benefits Delivery and Sustaining Benefits. The global dependent variable is benefits realization in Dubai and UAE infrastructure projects.

5.2 Background and Demographic Profile of Respondents

The three-section questionnaire was distributed via email to various organizations, both government and non-government. The respondents were chosen based to their relation to and work in infrastructure projects within the UAE. All levels of the organization were targeted for respondents to gain more accurate understanding of the relationship between dependent and independent variables. While most respondents were male, it is understood that this would not significantly skew results as most in the field are males.

The following table provides a summary of the background and demographics of the respondents top the survey:

Table 1: Demographic profile of participants (N=100)

Gender	Frequency	Percentage
Male	84	84.00%
Female	16	16.00%
Total	100	100.00%
Education	Frequency	Percentage
Graduate	20	20.00%
Diploma	1	1.00%
Bachelor	26	26.00%
Master / PhD	53	53.00%
Total	100	100.00%
Age	Frequency	Percentage
Below 25	0	0.00%
25 to 35	29	29.00%

36 to 46	38	38.00%
47 to 57	32	32.00%
Above 58	1	1.00%
Total	100	100.00%
Job sector	Frequency	Percentage
Public	50	50.00%
Private	45	45.00%
Other	5	5.00%
Total	100	100.00%
Job type	Frequency	Percentage
Program Manager	11	11.00%
Project Manager / Construction Manager	57	57.00%
Project Engineer / Construction (Site) Engineer	15	15.00%
Consultant or Advisor	6	6.00%
Project Expeditor	5	5.00%
Project Coordinator	0	0.00%
Other	6	6.00%
Total	100	100.00%
Years of experience	Frequency	Percentage
Less than a year	0	0.00%
2 to 5 years	17	17.00%
6 to 10 years	11	11.00%
More than 10 years	72	72.00%
Total	100	100.00%

5.3 Reliability Test (Cronbach's Alpha)

Cronbach's alpha tends to estimate and indicate the internal consistency reliability and shows homogeneity and how items are close to be in one group. However, the aim is to reach at least 0.7 as justified and reliable point.

In this research the independent variable Benefits Realization factors have 0.884 value where the dependent variable UAE Infrastructure development project outcomes factors have .889 value as shown in the below tables. Therefore, these values shows a high reliability and hence there is no requirement for factor enhancement or deletion.

Table 2: Cronbach's Alpha for Benefits Realization**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.881	.884	25

Table 3: Cronbach's Alpha for UAE Infrastructure Development Project Outcomes**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.907	.889	25

5.4 Correlation Analysis and Hypothesis Testing**5.4.1 Correlation**

The correlation aims to measure the strength, significance and direction of the relationship between offered variables, however in this research the correlation between Benefits Realization and UAE Infrastructure development project outcomes was 0.388 (as show the below table) which shows positive, yet weak relationship between independent and dependent variables. However, correlation analysis for anticipated six hypotheses was done and will be discussed in hypotheses section for significance of relationship.

Table 4: Correlation between Project Outcomes and Benefits Realization in Project Management

Correlations

		BenefitReal	Project outcomes
BenefitReal	Pearson Correlation	1	.388**
	Sig. (2-tailed)		.000
	N	100	100
Projectoutcomes	Pearson Correlation	.388**	1
	Sig. (2-tailed)	.000	
	N	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

5.4.2 Hypothesis Testing

In this section, the variables were computed in SPSS as factors to serve the testing of correlation which requires a factor to factor testing, the following are the six hypotheses anticipated at the beginning of the research along with their results:

H1: There is significant positive relationship between Independent Variable: Benefits Realization and Dependent Variable: UAE Infrastructure development project outcomes

From the output table of the correlational analysis conducted in SPSS is presented below. It can be seen from the table that there is a low positive relationship between the two variables as with a correlation value at 0.388. However, the relationship the sig value is less than 0.01. Therefore, it can be concluded that there is a statistically significant relationship between the two variables.

Table 5: Correlation between Benefits Realization and UAE Infrastructure development project outcomes

Correlations

		BenefitReal	Projectoutco
		mes	mes
BenefitReal	Pearson	1	.388**
	Correlation		
	Sig. (2-tailed)		.000
	N	100	100
Projectoutcomes	Pearson	.388**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	100	100

****.** Correlation is significant at the 0.01 level (2-tailed).

H2: There is significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits

This hypothesis assumes that there is positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits. Based on the correlation table below, the correlation between UAE Infrastructure development project outcomes and Identifying Benefits is 0.540 which is positive and moderate in significance. Furthermore, UAE Infrastructure development project outcomes and Identify the benefits factors have a significance level less than 0.01. Therefore, this hypothesis is accepted.

Table 6: Correlation between UAE Infrastructure development project outcomes and Identifying Benefits

Correlations

		Projectoutco	Identifying
		mes	Benefits
Projectoutcomes	Pearson	1	.540**
	Correlation		

	Sig. (2-tailed)		.000
	N	100	100
Identifying Benefits	Pearson Correlation	.540**	1
	Sig. (2-tailed)	.000	
	N	100	100

****.** Correlation is significant at the 0.01 level (2-tailed).

H3: There is significant positive relationship between UAE Infrastructure development project outcomes and Executing benefits

This hypothesis assumes that there is positive relationship between UAE Infrastructure development project outcomes and Executing benefits. Based on the correlation table below, the correlation between UAE Infrastructure development project outcomes and Executing benefits is 0.293 which is a weak positive relationship. Furthermore, UAE Infrastructure development project outcomes and executing benefits have a significance level less than 0.01. Therefore, this hypothesis is accepted.

Table 7: Correlation between UAE Infrastructure development project outcomes and Executing benefits

Correlations

		Projectoutcomes	Executing benefits
Projectoutcomes	Pearson Correlation	1	.293**
	Sig. (2-tailed)		.003
	N	100	100
	Pearson Correlation	.293**	1
Executing benefits	Sig. (2-tailed)	.003	
	N	100	100

****.** Correlation is significant at the 0.01 level (2-tailed).

H4: There is significant positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation

This hypothesis assumes that there is positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation. Based on the correlation table below, the correlation between UAE Infrastructure development project outcomes and Organizational Reputation is 0.155 which is positive and very weak in relationship. Furthermore, UAE Infrastructure development project outcomes and Organizational Reputation factors have a significance level over 0.01. Therefore, this hypothesis is rejected.

Table 8: Correlation between UAE Infrastructure development project outcomes and Organizational Reputation

Correlations

		Projectoutcomes	Organization al Reputation
Projectoutcomes	Pearson Correlation	1	.155
	Sig. (2-tailed)		.123
	N	100	100
Organizational Reputation	Pearson Correlation	.155	1
	Sig. (2-tailed)	.123	
	N	100	100

H5: There is significant positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery

This hypothesis assumes that there is positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery. Based on the correlation table below, the correlation between UAE Infrastructure development project outcomes and Benefits

Delivery is 0.802 which is a highly positive relationship. Furthermore, UAE Infrastructure development project outcomes and Benefits Delivery factors have a significance level less than 0.01. Therefore, this hypothesis is accepted.

Table 9: Correlation between UAE Infrastructure development project outcomes and Benefits Delivery

Correlations

		Projectoutco mes	Benefits Delivery
Executing benefits	Pearson Correlation	1	.802**
	Sig. (2-tailed)		.000
	N	100	100
Benefits Delivery	Pearson Correlation	.802**	1
	Sig. (2-tailed)	.000	
	N	100	100

****.** Correlation is significant at the 0.01 level (2-tailed).

H6: There is significant positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits

This hypothesis assumes that there is positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits. Based on the correlation table below, the correlation between UAE Infrastructure development project outcomes and Sustaining Benefits is 0.375 which is a weak positive relationship. Furthermore, UAE Infrastructure development project outcomes and Sustaining Benefits factors have a significance level less than 0.01. Therefore, this hypothesis is accepted.

Table 10: Correlation between UAE Infrastructure development project outcomes and Sustaining Benefits

Correlations

		Projectoutco mes	Sustaining Benefits
Projectoutcomes	Pearson	1	.375**
	Correlation		
	Sig. (2-tailed)		.000
	N	100	100
Sustaining Benefits	Pearson	.375**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	100	100

****.** Correlation is significant at the 0.01 level (2-tailed).

5.5 Descriptive Analysis: Benefits Realization

Figure 6 below shows the average rating of the participants when it comes to the perceived benefits realization factors on infrastructure projects. Based on the data, three factors were indicated by the surveyed participants to have high benefit realization (over 4.5). Topping the list of having high impact is a factor, “Executing benefits [The cost of items spending on a project must be checked regularly] and “Organizational Reputation [Meeting the deadline in project is necessary.]”, which gained a mean rating score of 4.75 and 4.64 respectively. Another factor, “Identifying Benefits [Organization must calculate the amount of revenue before taking the project.]” has very high influence on benefit realization, as reflected on the average rating of 4.56.

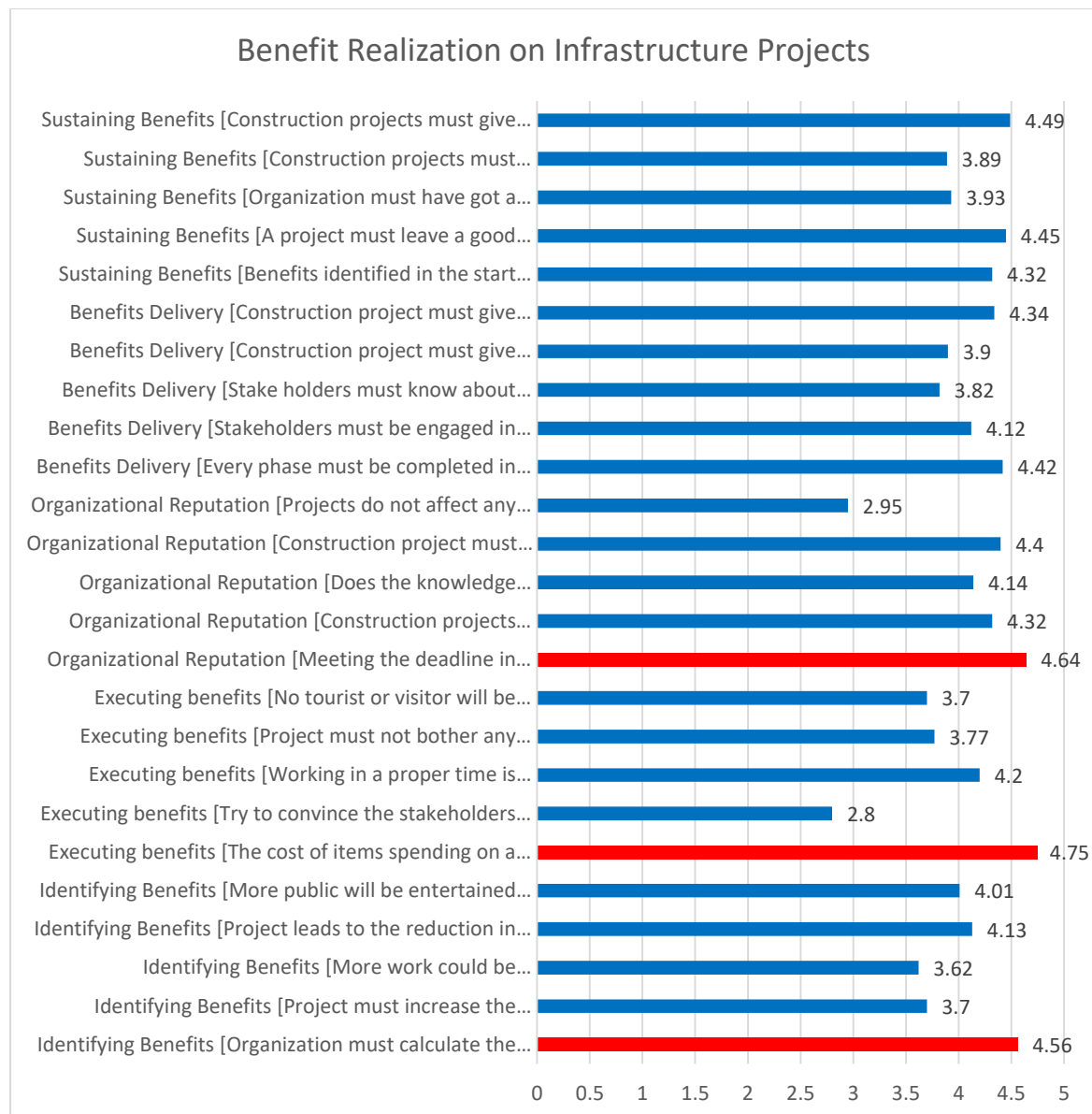


Figure 6: Perceived degree of Benefit Realization on Infrastructure Projects

Other factors indicated in blue in the Figure above have high to moderate influence on benefit realization, as perceived by the surveyed participants. The factors that were perceived having the least impact of amongst all the factors are either categorized as “Executing benefits” or “Organizational Reputation” with average rating scores of 2.8 and 3.95, respectively.

5.6 Descriptive Analysis: UAE Infrastructure Development Project Outcomes

Figure 7 below shows UAE Infrastructure development project outcomes, and several factors influencing its occurrence. These factors were categorized as “Cost”, “Time”, “Outcomes”, “Government Influence” and “Social Influence”. Based on the Figure, there was only one factor that was perceived by the surveyed participants to have high impact on project outcomes. This was from the category “Cost” entitled “The unclear requirements and design from the client may increase the cost” with an average value of 4.61. Paradoxically from the same category “Project managers are unable to manage the project”, scored quite low with an average value of 2.85.

Some noteworthy factors that were relatively high were from the social influence category such as “People will be benefitted as more construction projects starts in the country” and “Alternate routes are managed for the public” with scores over 4.1 each.

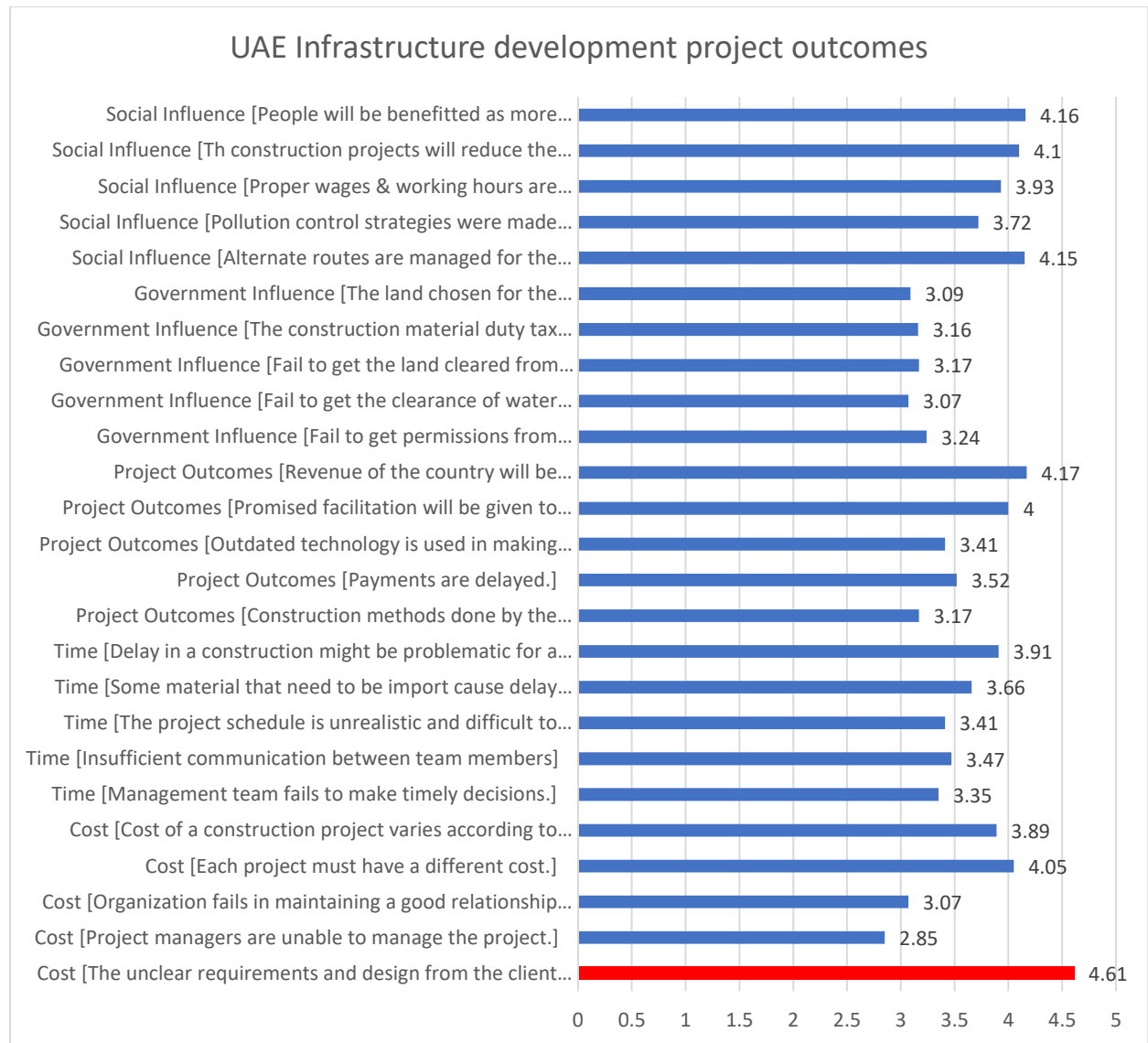


Figure 7: Perceived degree of UAE Infrastructure development project outcomes

6.0 Discussion

6.1 Background and Overall Aims

A review of the literature revealed that there are number of factors that affect the relationship between benefits realization and projects outcomes. After a comprehensive review of the literature the following factors were identified as having an impact on benefits realization:

- Identifying Benefits
- Executing benefits
- Organizational Reputation
- Benefits Delivery
- Sustaining Benefits

Based on the above identified factors in literature a series of six hypothesis were formulated and tested. Data was gathered with the use of a questionnaire consisting a total of 25 questions distributed to infrastructure project team members. From the data gathered, several tests were conducted. First a Cronbach's test was carried out to test reliability. Once reliability was tested, each hypothesis were tested in a correlation test, which also indicated the strength and direction of the relationship between the dependent and independent variables. It was assumed that each of the aforementioned variables had a positive and significant relationship with project outcomes.

6.2 Association between Benefit Realization and Infrastructure Development Project Outcomes in the UAE

The findings of the research were based upon the association between benefits realization and Dubai/UAE infrastructure development projects outcomes. In this regard, the study provided that Known as a project benefit management, benefits realization represents a

way of managing time and resources in the pursuit of anticipated changes. However, similarly to other business concepts, benefits management does not have a single definition since the researchers have been investigating it from different perspectives. For instance, Alnsour (2014) considered benefit realization to be the processes undertaken by organizations in seeking change. In this regard, it is an organizational and management process that enhances the chances of attaining the benefits associated with the adoption of recent technologies.

With respect to the findings of the study, three factors were indicated by the surveyed participants to have high benefit realization that included “Executing benefits [The cost of items spending on a project must be checked regularly]”, “Organizational Reputation [Meeting the deadline in project is necessary.]”, and “Identifying Benefits [Organization must calculate the amount of revenue before taking the project.]”. Based on the results, all these factors had a mean score of 4.75, 4.64, and 4.56 respectively.

Furthermore, data collected for this study was also focused towards assessing the perceived degree of impact of organizational risks on project completion. Based on the results, factors such as, “Executing benefits” or “Organizational Reputation” were assessed to have the least impact. In addition to this, tests were also conducted to assess the UAE Infrastructure development project outcomes along with impact of several factors influencing its occurrence. Based on the findings of the research, it was identified that there was only one factor that was perceived by the surveyed participants to have high impact on project outcomes. This was from the category “Cost” entitled “the unclear requirements and design from the client as it may increase the cost” with an average value of 4.61. Paradoxically from the same category it was also identified that “Project managers were unable to manage the project”, scoring quite low with an average value of 2.85. On the other hand, the findings of the results also provided some note worthy factors that were relatively high were from the

social influence category such as “People will be benefitted as more construction projects starts in the country” and “Alternate routes are managed for the public” with scores over 4.1 each.

6.2.1 Hypothesis Discussion

As explained in the outset of the research, the main aim of this research is to explore and confirm the positive relationship between Benefit Realization and Infrastructure Development Project Outcomes in the UAE for infrastructure projects. The research aim, as explored previously, is achieved through the testing of research hypothesis which are reiterated below. The following analysis will illustrate how the individual research objectives which were outlined in the Introduction have been met.

H1: There is significant positive relationship between Independent Variable: Benefits Realization and Dependent Variable: UAE Infrastructure development project outcomes

In this regard, the findings of the results provided that there is significant positive relationship between Benefits Realization and UAE Infrastructure development project outcomes. With respect to this hypothesis, the correlation analysis conducted in SPSS provided that there is a low positive relationship between the two variables as with a correlation value at 0.388. However, the relationship the sig value was less than 0.01. Therefore, it can be concluded that there is a statistically significant relationship between the two variables. With respect to the results of the hypothesis, the work of Anderson et al. (2015) provides that benefits realization is a process that tracks the conception, initiation, organization, planning, execution, control, and support of change-oriented activities in the hope of achieving desired outcomes. In support of it, Badewi (2016) also added perceived benefit realization as a collection of processes that are structured to bridge the gap that prevails between the planning and implementation stages of critical projects.

From the above, the hypothesis can be supported as it is evident that benefits realization is highly related to the results of project management. Any business undertaking is expected to bring profits. To measure the success of a strategy in terms of the agenda, the benefits realization process could be efficient. Bakir et al. (2015) also supported the fact that the aim of benefits realization is to improve the alignment of project aims and business strategies, the link that is deeply significant in increasing the levels of business success.

H2: There is significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits

Furthermore, the objective of the research was also attained through another hypothesis, which provided that there is significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits. Based on the results of the study and the correlation table, it was assessed that the correlation between UAE Infrastructure development project outcomes and Identifying Benefits was 0.540 which was positive and moderate in significance. Furthermore, UAE Infrastructure development project outcomes and “Identify the benefits” factors have a significance level less than 0.01. This hypothesis can be further supported by the literature that provides regarding the relevancy of benefits realization to strategy formulation in government and non-government companies is critical. In fact, benefits realization has become a powerful tool in both private and public sectors. As a result, governmental and non-governmental entities are now increasingly relying on it as a way of assessing the value of projects or programs before their implementation. Undoubtedly, non-governmental enterprises have goals and targets to meet. Moreover, public sector organizations have a mandate to address certain issues. Owing to the growing awareness about delivery and the results orientation among the members of the public sector, its entities regard the benefits realization approach to be highly advantageous for their performance. The strength of the tool lies in its capacity to identify, plan, and make

adjustments to programs. With the help of tracking project in different stages, benefits realization has become a powerful tool not only to non-governmental organizations but also to public enterprises.

H3: There is significant positive relationship between UAE Infrastructure development project outcomes and Executing benefits

Moreover, for reflecting upon the purpose of the study, another hypothesis was tested that provided that there significant positive relationship between UAE Infrastructure development project outcomes and executing benefits. Based on the findings of the research and test applied, the hypothesis assumed that there is positive relationship between UAE Infrastructure development project outcomes and Executing benefits. In addition to this, the correlation between UAE Infrastructure development project outcomes and Executing benefits was 0.293 and represented a weak positive relationship. Furthermore, UAE Infrastructure development project outcomes and Executing benefits also had a significance level less than 0.01.

These findings can be further supported from the work of Yousaf Madi (2016). It incorporates the majority of the practices that should be sorted out with the end goal to continue with the recognized benefits. This is the phase of dealing with the majority of the essential identified components which should be tended to with the end goal to accomplish the benefits for an effort. The benefits should be executed legally as great administration and characterizing a suitable strategy. Madi in 2016 recognized the majority of the great practices that are fundamental for benefits execution. These are all of the good practices that are collected by the professor Madi in his research. He has shown all of the factors that need to be addressed very carefully because either they could affect a project on an enterprise level or it can increase the profit value. In either case, it's a benefit.

H4: There is significant positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation

Furthermore, based on the findings of the research, the researcher also found that there is significant positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation. In this regard, a hypothesis was developed which assumed that there is positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation. Based on the correlation between UAE Infrastructure development project outcomes and Organizational Reputation, an outcome of 0.155 was obtained which is positive and very weak in relationship. Furthermore, UAE Infrastructure development project outcomes and Organizational Reputation factors have a significance level over 0.01. Therefore, this hypothesis was rejected. In this regard, the existing literature can be referred once again, which reflects upon factors of Infrastructure development project outcomes. In this regard, the main Infrastructure development project outcomes were identified that included enhanced logistics, increased volume of goods movement, improved living standards, more visitors coming to the UAE, reduced travel time, low levels of stress, and increased revenue to authorities. Furthermore, the following factors were considered critical for this study.

- Travel duration- reduction in time
- Visitors' attraction – increase in number of visitors
- Ease of doing business – improvement in business environment
- Economic improvement – enhancement of economic opportunities
- Social standards – improvement in living standards
- Environment- level of pollution or its absence
- Employment- increase in job opportunities

H5: There is significant positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery

The study was also conducted to test another hypothesis and based on the results it was identified that there is significant positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery. This hypothesis assumed that there is positive relationship between UAE Infrastructure development project outcomes and Benefits Delivery. Based on the correlation test performed, the correlation between UAE Infrastructure development project outcomes and Benefits Delivery was assessed to be 0.802 which is a highly positive relationship. Furthermore, UAE Infrastructure development project outcomes and Benefits Delivery factors also indicated a significance level of less than 0.01 therefore, the hypothesis was accepted.

This can be further supported from the findings of Breese et al (2016). Benefits delivery was referred by them as the subsequent step in the process, and it rests on the idea that benefits are realized upon the completion of a project. However, when handling a program, it must be noted that the deliverables are realized at an incremental perspective (Breese et al. 2016). Delivery is dependent on the nature of the outcome. However, it is different for products and services. For instance, service-oriented programs generate benefits gradually while for products, the benefit is realized at the closure of the project.

With regards to the portfolio, delivery is also viewed as an incremental process hence requires a roadmap to demonstrate the status of benefits by linking them to strategic objectives and goals of an entity. The approach permits executives to streamline program or project delivery as they are able to monitor, adjust and/or terminate required processes or activities (Breese, et al. 2016). To be successful, the project champion needs to work closely with the team, manager, and other leaders. In addition, paying attention to external variables is integral to the successful execution of programs. It is also important to update the benefit

metrics and register.

H6: There is significant positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits

Moreover, the study was also conducted to assess the link between UAE Infrastructure development project outcomes and Sustaining Benefits. Thus, based on the findings of the research, it was concluded that there is significant positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits. In this regard, a correlation analysis was also performed which assumed that there is positive relationship between UAE Infrastructure development project outcomes and Sustaining Benefits. Based on the correlation, the link between UAE Infrastructure development project outcomes and Sustaining Benefits was 0.375 which was a weak positive relationship. Furthermore, UAE Infrastructure development project outcomes and Sustaining Benefits factors had a significance level less than 0.01 due to which, the hypothesis was accepted.

The findings of the research can be further supported from different projects in the UAE as a number of construction projects were successfully undertaken and completed in the UAE. One of those highly beneficial projects is the Dubai Metro. Three lines are expected to be fully operational although only two of them are complete and operational; they will run in the underground of the city of Dubai (Staff Report 2017). Trains operating under the program are automated and driverless. The trains are also air-conditioned. Moreover, they have platform edge openings. The Aedas firm is the entity that designed forty-five stations that Metro trains operate in (Staff Report 2017). Besides, the facilities have two depots and control centers. However, it is the Al Ghurair Investment Group that took charge of the Metro railway. When the leader of Dubai announced the commencement of the construction of Dubai Metro, one of the expected outcomes was to attract up to 15 million visitors to the city by the year 2010 (RTA Annual Statistical Report 2013). Due to the rapid growth of the city's

population, the train services were also anticipated to enhance the technological development across the UAE. Another major outcome would be the reduction of the severe traffic that characterized the city. Apart from resolving various transport concerns, the services would also provide a new platform for the growth and development of the Dubai economy.

H7: Minimal Impact of Moderating Variable

The Cronbach alpha conducted for the dependent and independent variables yielded a value of over 0.7. This means that the variables identified are prominent and there is little evidence that moderating variables have a significant impact. This is backed by statically literature (Cronbach 1987).

7.0 Conclusion and Recommendation

7.1 Topic Relevancy

This study was based on the association between benefits realization and Dubai/UAE infrastructure development projects outcomes. In this regard, the study provided and reflected upon benefit realization as a way of managing time and resources in the pursuit of anticipated changes. However, similarly to other business concepts, benefits management does not have a single definition since the researchers have been investigating it from different perspectives. For instance, Alnsour (2014) considered benefit realization to be the processes undertaken by organizations in seeking change. In this regard, it was an organizational and management process that enhances the chances of attaining the benefits associated with the adoption of recent technologies. According to Anderson et al. (2015), benefits realization was a process that tracks the conception, initiation, organization, planning, execution, control, and support of change-oriented activities in the hope of achieving desired outcomes. In turn, Badewi (2016) perceived benefit realization as a collection of processes that are structured to bridge the gap that prevails between the planning and implementation stages of critical projects.

7.2 Paper Overall Findings

The paper overall aim was to explore and to find answers to the following questions and their corresponding findings:

Q1. What is the significance of benefits delivery and organizational reputation in infrastructure development projects outcomes in the UAE?

Based on the correlation test performed, the correlation between UAE Infrastructure development project outcomes and Organizational Reputation and benefits delivery was assessed to be more than 0.7 which is a highly positive relationship. This can be further supported from the findings of Breese et al (2016). According to Breese and fellows (2016) benefits are subsequent steps in the project, because benefits are achieved upon the completion of the project. Although during the process of a project, the objectives are appreciated at regular interval. Delivery of the project objectives depends upon the nature of the possible outcome. And varies form product to product and service to service. For example, the benefits in project-based programs are resulted at the end of the project while on the service-based project benefits can be sighted during the projects.

Q2. What is the relationship between benefits realization and infrastructure development projects outcomes?

Furthermore, the research was also directed towards attaining the aims and objectives for which, hypothesis were being developed and were tested through application of SPSS for correlation analysis. In this regard, the findings of the results provided that that there was significant positive relationship between Benefits Realization and UAE Infrastructure development project outcomes. With respect to this hypothesis, the correlation analysis conducted in SPSS provided that that there was a low positive relationship between the two variables as with a correlation value at 0.388. However, the relationship the sig value was less than 0.01. Therefore, it can be concluded that there was a statistically significant relationship

between the two variables. With respect to the results of the hypothesis, the work of Anderson et al. (2015) provides that benefits realization was a process that tracks the conception, initiation, organization, planning, execution, control, and support of change-oriented activities in the hope of achieving desired outcomes. In support of it, Badewi (2016) also added perceived benefit realization as a collection of processes that are structured to bridge the gap that prevails between the planning and implementation stages of critical projects.

Q3. What are the factors of infrastructure development project outcomes?

From the above, the hypothesis can be supported as it was evident that benefits realization was highly related to the results of project management. Any business undertaking was expected to bring profits. To measure the success of a strategy in terms of the agenda, the benefits realization process could be efficient. Bakir et al. (2015) also supported the fact that the aim of benefits realization was to improve the alignment of project aims and business strategies, the link that was deeply significant in increasing the levels of business success.

Moreover, for reflecting upon the purpose of the study, another hypothesis was tested that provided that there significant positive relationship between UAE Infrastructure development project outcomes and executing benefits. Based on the findings of the research and test applied, the hypothesis assumed that there was positive relationship between UAE Infrastructure development project outcomes and Executing benefits. In addition to this, the correlation between UAE Infrastructure development project outcomes and Executing benefits was 0.293 and represented a weak positive relationship. Furthermore, UAE Infrastructure development project outcomes and Executing benefits also had a significance level less than 0.01.

These findings can be further supported from the work of Yousaf Madi (2016). It incorporates the majority of the practices that should be sorted out with the end goal to continue

with the recognized benefits. This was the phase of dealing with the majority of the essential identified components which should be tended to with the end goal to accomplish the benefits for an effort. The benefits should be executed legally as great administration and characterizing a suitable strategy. Yousaf Madi in 2016 recognized the majority of the great practices that are fundamental for benefits execution. These are all of the good practices that are collected by the professor Madi in his research. He has shown all of the factors that need to be addressed very carefully because either they could affect a project on an enterprise level or it can increase the profit value. In either case, it's a benefit.

Furthermore, based on the findings of the research, the researcher also found that there was significant positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation. In this regard, a hypothesis was developed which assumed that there was positive relationship between UAE Infrastructure development project outcomes and Organizational Reputation. Based on the correlation between UAE Infrastructure development project outcomes and Organizational Reputation, an outcome of 0.155 was obtained which was positive and very weak in relationship.

The objective of the research was also attained through another hypothesis, which provided that there was significant positive relationship between UAE Infrastructure development project outcomes and Identifying Benefits. Based on the results of the study and the correlation table, it was assessed that the correlation between UAE Infrastructure development project outcomes and Identifying Benefits was 0.540 which was positive and moderate in significance. Furthermore, UAE Infrastructure development project outcomes and "Identify the benefits" factors have a significance level less than 0.01.

This hypothesis can be further supported by the literature that provides regarding the relevancy of benefits realization to strategy formulation in government and non-government

companies was critical. In fact, benefits realization has become a powerful tool in both private and public sectors. As a result, governmental and non-governmental entities are now increasingly relying on it as a way of assessing the value of projects or programs before their implementation. Undoubtedly, non-governmental enterprises have goals and targets to meet. Moreover, public sector organizations have a mandate to address certain issues. Owing to the growing awareness about delivery and the results orientation among the members of the public sector, its entities regard the benefits realization approach to be highly advantageous for their performance. The strength of the tool lies in its capacity to identify, plan, and make adjustments to programs. With the help of tracking project in different stages, benefits realization has become a powerful tool not only to non-governmental organizations but also to public enterprises.

7.3 Recommendations

For a project to attain its anticipated benefits, monitoring and tracking progress before writing a final report are deemed to be crucial. However, a gap can be easily identified with respect to the knowledge and literature that was currently available due to which there was a need to conduct research with respect to association between benefits realization and Dubai/UAE infrastructure development projects outcomes. In his study, Arrivabene (2013) broadened the concept by indicating that benefits realization and tracking plans must also be prepared in an effort to ensure that agreement on the realization criteria was reached. Consequently, the author suggested formulating the plan and focusing on the measurement units that enhance the understanding of performance indicators start dates, measurement frequency, and resources required benefits communication and those persons who are accountable at each stage of the project. However, as numerous Infrastructure Development Projects are being undertaken in Dubai, it was necessary to conduct research to assess different

project outcomes and their contribution to the country, so that the benefits can be utilized in the most effective manner.

Following are the key recommendations:

- In order to achieve the expected outcomes, a project needs to be monitored, tracked and studied before the final steps. Although a gap in the project can easily be found earlier, on the basis of the available literature. The finding of gap can be useful in conducting a research in respect to benefits of realization and the outcomes of the projects. The same is true for Dubai infrastructure development projects.
- The tangible benefits include, acquisition of new markets, increase in net value, returns on investment and cost reduction (Janssen et al. 2015). The upper management of both public and private sectors are usually interested more in tangible benefits than the non-tangible ones. Non-tangible benefits, on the other defines the success of organization, because of the elements and aspects they cover. The aspect covered by non-tangible benefits are staff motivation, regulatory compliance, strategic alignment and customer satisfaction. Although non-tangible benefits are found to be more beneficial in terms of meeting the needs and demands of stakeholders, such as workers, customers and society.
- Arrivabene (2013), in his study widened the concept of benefits of realization by indicating the need of the plan tracking. He stated that the tracking of plan is required to ensure the achievement of the criteria of realization. He also suggested plan formation and to focus on the measuring factors of the performance.
- As numerous Infrastructure Development Projects are being undertaken in Dubai, it was necessary to conduct research to assess different project outcomes and their contribution to the country, so that the benefits can be utilized in the most effective manner.

- It is important to have a benefits of realization plan. And to review the project going to be start. The review of the project provides with the indicators of the key performance and the list of metrics. This list and key performance indicators are helpful in checking the possibility of every benefit of the project. It is also found to be helpful not only in specifying the time required by a project to be completed but also define the required resources and the role of the organization goals in the results. Stakeholders are found to be more interested in metrics. For example, the cost for attaining a benefit is great therefore, the leadership and management have to explore alternative steps in order to fully achieve the target. These alternative steps can be redrawing objectives, re-planning the project processes and every other element that may be neglected during the process of benefits of realization. That's why the analysis of the project is a regular process that help in refurbishing projects programs and portfolios.

7.4 Areas for Future Study

In order to carryout future research in the same area, this research's approved global hypothesis can be assessed in other multinational and global organizations. The unique opportunity of carrying out research in UAE is the fact that numerous international and reputed companies operate in Emirates especially in the construction industry. The important research objective in carrying our similar research in other countries would be the role of local companies as usually they compose the majority of the industry. The projects in other countries are usually not as grand as in UAE, are not racing against time and usually don't have high budgets. Further application of this research in different countries will help develop a comprehensive research data which will provide insights in the dynamics of different countries construction sector. The global research would help companies to work more effectively on joint ventures in different countries as they will understand the success factors and the dynamics unique to each country's construction industry.

8.0 References

- Ahern, T., Leavy, B. & Byrne, P. J. (2014). Complex Project Management as Complex Problem Solving: A Distributed Knowledge Management Perspective. *International Journal of Project Management*, vol. 32(8), pp. 1371-1381.
- Alnsour, B.H. (2014). The Use Of Virtual Project Teams For Project Management In Jordanian Corporations. *Eurasian Journal of Business and Management*, vol. 2 (2), pp. 50-60.
- Anderson, D., Sweeney, D., Williams, T., Camm, J. & Cochran, J. (2015). An Introduction To Management Science: Quantitative Approaches To Decision Making. Boston: *Cengage Learning*.
- Arrivabene, A. T. (2013). 'Benefits Management', In G. Levin (ed.). *Program management: alife cycle approach*. Boca Raton: CRC Press, pp. 75–94.
- Badam, R. T. (2017). Highway Master Plan Aims to Tackle Dubai-Sharjah Congestion and Improve Links to the North. *UAE: The National* [online]. [Accessed 5 October 2018] Available at: <https://www.thenational.ae/uae/transport/highway-masterplan-aims-to-tackle-dubai-sharjah-congestion-and-improve-links-to-the-north-1.681379>
- Badewi, A. (2016). The Impact Of Project Management (PM) And Benefits Management (BM) Practices On Project Success: Towards Developing A Project Benefits Governance Framework. *International Journal of Project Management*, 34 (4), 761–778.
- Badewi, A., & Shehab, E. (2016). The Impact of Organizational Project Benefits Management Governance on ERP Project Success: Neo-Institutional Theory Perspective. *International Journal of Project Management*, 34(3), pp. 412–428.
- Bakir, A., Blodgett, J. G., Vitell, S. J. & Rose, G. M. (2015). A Preliminary Investigation of the Reliability and Validity of Hofstede's Cross Cultural Dimensions. Proceedings of the 2000 Academy Of Marketing Science (AMS). *Annual Conference* (pp. 226-232). New York: Springer International Publishing.
- Breese, R., Jenner, S., Serra, C., Thorp, J. & Badewi, A. (2016). A Unified View of Benefits Management/Benefits Realization Management To Be Integrated Into PMI Standards.
- Chin, M.M. & Spowage, A.C. (2012). Project Management Methodologies: A Comparative Analysis. *Journal for the Advancement of Performance Information and Value*, vol. 4 (1), pp. 106-118.
- Creswell, J. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approaches (4th ed.). Los Angeles, USA: *SAGE Publications*.

- Cronbach, L.J., (1987). Statistical Tests For Moderator Variables: Flaws In Analyses Recently Proposed.
- Desouza, K.C., Evaristo, R., Scudder, R. & Sato, O. (2015). A Dimensional Analysis of Geographically Distributed Project Teams: A Case Study. *Journal of Engineering and Technology Management*, vol. 21, pp. 175-189.
- Faria, A.G., de Oliveira, S.B. & Macêdo, F.C. (2018). Process-Based Project Management For Implementation Of An ERP System At A Brazilian Teaching Institution. *International Conference on Information Theoretic Security* (pp. 40-49). Springer, Cham.
- Freidi, S.S.A (2014). Determinants of The Best Practices For Successful Project Management. *International Journal of U- and E- Service, Science and Technology*, vol. 7 (3), pp. 173-186.
- Gall, M., Borg, W. & Gall, J. (1996). Educational Research: An Introduction. *Longman Publishing*.
- Gera, S. (2013). Virtual Teams Versus Face To Face Teams: Are View Of Literature. *IOSR Journal of Business and Management*, vol. 11 (2), pp.01-04.
- Germain, M. L. & McGuire, D. (2014). The Role of Swift Trust In Virtual Teams And Implications For Human Resource Development. *Advances in Developing Human Resources*, vol. 16 (3). pp.356-370.
- Goddard, W., & Melville, S. (2004). Research Methodology: An Introduction. *Juta and Company Ltd*.
- Janssen, M., Van Der Voort, H. & van Veenstra, A. F. (2015). Failure of Large Transformation Projects from the Viewpoint of Complex Adaptive Systems: Management Principles For Dealing With Project Dynamics. *Information Systems Frontiers*, vol. 17(1), pp. 15-29.
- Krathwohl, D. (2004). *Methods in Education and Social Research: An Integrated Approach*. (2nd edition). USA, Illinois: Waveland Press.
- Latif, K.F., & Williams, N. (2017). Team effectiveness in non-governmental organizations (NGOs) projects. *Evaluation and program planning*, 64, pp.20-32.
- Lee, M.S. and Pillutla, M.M. (2015). The Effect of Heterogeneity Of Ability In Teams On Performance. In *Academy of Management Proceedings*, Vol. 2015, No. 1, p. 17937. Briarcliff Manor, NY 10510: Academy of Management.
- Levin, G. (2015). Benefits – A Necessity To Deliver Business Value And A Culture Change But How Do We Achieve Them? Paper presented at PMI® Global Congress 2015—North America. Orlando: *Project Management Institute*.

- Madi, G. Y., (2016). PMI throughout Leadership. Benefits Relation Management Framework, pp. 1-4.
- Mims, C. (2015). Data Is The New Middle Manager. *Wall Street Journal* [online]. [Accessed 5 October 2018] Available at:<https://www.wsj.com/articles/data-is-the-new-middle-manager-1429478017>
- Muszynska,K.(2015). Communication Management in Project Teams- Practices and Patterns. *Joint International Conference*, pp. 1359-1366.
- Nanthagopan, Y., Williams, N.L., & Page, S. (2016). Understanding the Nature of Project Management Capacity in Sri Lankan Non-Governmental Organizations (Ngos): A Resource Based Perspective. *International Journal of Project Management*, 34(8), pp.1608-1624.
- Nenni, ME., Arnone, V., Boccadelli, P. & Napolitano, I. (2014). How to Increase the Value Of The Project Management Maturity Model As A Business-Oriented Framework. *International Journal of Engineering Business Management*, vol. 6 (8), pp.1-7.
- Ojiako, U., Chipulu, M., Marshall, A., Ashleigh, M., Maguire, S., Williams, T. & Obokoh, L. (2015). Heterogeneity and Perception Congruence of Project Outcomes. *Production Planning & Control*, vol. 26(11), pp. 858-873.
- Orchill, D.P. (2018). Market Relevance of University Accounting Programs: Evidence from Ghana (Doctoral Dissertation, University of Ghana).
- Project Management Institute (2013). *Managing Change in Organizations: A Practice Guide*. Newtown Square: *Project Management Institute*.
- Project Management Institute. (2013). *the Standard For Portfolio Management*. Newtown Square: *Project Management Institute*.
- Project Management Institute. (2015). *Capturing the Value of Project Management*. Newtown Squar.
- ReSearCher, N. (2017). Use of Theoretical and Conceptual Frameworks in Qualitative Research. *Nurse researcher*, 21(6), pp.34-38.
- RTA Annual Statistical Report (2013). [Accessed 5 October 2018] Available at :<https://rta.ae/wps/portal/rta/ae/home/open-data>.
- Sarantakos, S. (2005). *Social Research*. 3rd edition. Hampshire: Palgrave Macmillan.
- Serra, C. E. M., (2015). Benefits Realization Management and Strategic Project Success Analysis of UK, USA, and Brazil. England. *Project Management Institute*, s.n.
- Serra, C.E.M. &Kunc, M. (2015). Benefits Realization Management and Its Influence on Project Success and On the Execution of Business Strategies. *International Journal of Project Management* vol. 33(1), pp. 53–66.

StaffReport. (2017). One Billion Riders Used Dubai Metro in Eight Years. *Gulf News* [online]. [Accessed 5 October 2018] Available at:<https://gulfnews.com/news/uae/transport/one-billion-riders-used-dubai-metro-in-eight-years-1.2087164>.

Svejvig, P.& Andersen, P. (2014). Rethinking Project Management: A Structured Literature Review with a Critical Look at the Brave New World. *International Journal of Project Management*, vol. 33(2015), pp. 278-290.

Teams on Performance. *Academy of Management Proceedings*, vol. 2015 (1), pp. 17937.

Turner, D. (2016). Variations Of The Project Sponsor Role And Benefits Realization: A Phenomenographic Study (*Doctoral dissertation, Sheffield Hallam University*).

Zaatari, S. (2018). Inside The New Abu Dhabi Airport Terminal; Mega Facility Set to Open In 2019. *Gulf News* [online]. [Accessed 5 October 2018] Available at:<https://gulfnews.com/business/aviation/inside-the-new-abu-dhabi-airport-terminal-mega-facility-set-to-open-in-2019-1.2119942>

9.0 Appendix Survey (Questionnaires)

Background Information

The research entitled “The Association between Benefits Realization and Dubai/UAE Infrastructure Development Projects Outcomes” mainly seeks to identify the association between benefits realization & UAE infrastructure development project outcomes.

This research questionnaires will help the researcher to identify the association between the benefits realization and Infrastructure development project outcomes.

Please answer the following questions and statements individually based on your knowledge and experience. The survey may take approximately 10 – 15 minutes of your time.

The questionnaires comprise to three sections:

- (1) General Information
- (2) Benefits Realization
- (3) UAE Infrastructure development project outcomes

The researcher ensures that any personal information provided in these questionnaires will not be revealed in order to protect your identity.

Thank you

Researcher

MSc in Project Management student: Ahmad Abdulrahman AlSharif under the supervision of Prof. Boussabaine Halim(Dean of Faculty of Business and Law)

The British University in Dubai

For any further inquiries, kindly contact the researchers at: 20170246@student.buid.ac.ae

Section 1: General Information

1 Gender

- Male
- Female

2 Age

- Below 25
- 25 to 35
- 36 to 46
- 47 to 57
- Above 58

3 Job Sector

- Public
- Private
- Other

4 Education

- Graduate
- Diploma
- Bachelor
- Master / PhD

5 Job Type

- Program Manager
- Project Manager / Construction Manager
- Project Engineer / Construction (Site) Engineer
- Consultant or Advisor
- Project Expeditor
- Project Coordinator
- Other

6 Years of experience

- Less than a year
- 2 to 5 years
- 6 to 10 years
- More than 10 years

Section 2: Benefits Realization

Please read the following factors with the related statements and tick one box for each question that best describes your perceptions and opinions about benefits realization in projects

NO.	Identifying benefits	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Organization must calculate the amount of revenue before taking the project.					
2	Project must increase the volume of goods in the area.					
3	More work could be accomplished with a smaller number of team.					
4	Project leads to the reduction in travel time.					
5	More public will be entertained by the project.					

NO.	Executing benefits	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The cost of items spending on a project must be checked regularly.					
2	Try to convince the stakeholders to increase the project scope.					
3	Working in a proper time is important to accomplish a task with a smaller number of team.					
4	Project must not bother any citizen.					
5	No tourist or visitor will be affected by the project.					

NO.	Organizational Reputation	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Meeting the deadline in project is necessary.					
2	Construction projects must lead to increase the number of visitors in the country.					
3	Does the knowledge management affect the organizational reputation for future projects.					
4	Construction project must show a positive change in revenue for the country.					
5	Projects do not affect any travel time.					

NO.	Benefits Delivery	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Every phase must be completed in time to reduce the cost.					
2	Stakeholders must be engaged in every phase of a project.					
3	Stake holders must know about every single information of the project.					

4	Construction project must give benefits to visitors in the country.					
5	Construction project must give benefits to the citizens as well.					

NO.	Sustaining Benefits	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Benefits identified in the start must be matched with the profit files in the end.					
2	A project must leave a good client relationship.					
3	Organization must have got a wonderful profit.					
4	Construction projects must reduce the travel time.					
5	Construction projects must give benefits to the country.					

Section 2: UAE Infrastructure Development Project Outcomes

Please read the following factors with the related statements and tick one box for each question that best describes your perceptions and opinions about UAE Infrastructure development project outcomes.

NO.	Cost	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The unclear requirements and design from the client may increase the cost.					
2	Project managers are unable to manage the project.					
3	Organization fails in maintaining a good relationship with client.					
4	Each project must have a different cost.					
5	Cost of a construction project varies according to the material used for the flexibility of people.					

NO.	Time	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Management team fails to make timely decisions.					

2	Insufficient communication between team members					
3	The project schedule is unrealistic and difficult to follow.					
4	Some material that need to be import cause delay in the construction.					
5	Delay in a construction might be problematic for a public.					

NO.	Project Outcomes	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Construction methods done by the contractor are inefficient.					
2	Payments are delayed.					
3	Outdated technology is used in making the project.					
4	Promised facilitation will be given to the public.					
5	Revenue of the country will be increased by the projects.					

NO.	Government Influence	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Fail to get permissions from government.					
2	Fail to get the clearance of water and electricity supply.					
3	Fail to get the land cleared from the government.					
4	The construction material duty tax might get increased.					
5	The land chosen for the construction might be disputed.					

NO.	Social Influence	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Alternate routes are managed for the public.					
2	Pollution control strategies were made to avoid the pollution for public.					
3	Proper wages & working hours are managed for the labor.					
4	The construction projects will reduce the travel time					

	for the people of the country.					
5	People will be benefitted as more construction projects starts in the country.					