APPENDIX- I

UPES
UNIVERSITY WITH A PURPOSE
Centre for Continuing Education

"A STUDY ON THE IMPACT OF ORGANIZATIONAL LEARNING ON PROJECT PORTFOLIO SUCCESS" (WITH REFERENCE TO OIL & GAS INDUSTRY)

BY

MR. ABDUR RAHMAN

SAP ID: 500057417

GUIDED BY

MR. ANIL KUMAR SINGH (MBA)

Manager

A DISSERTATION REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR

MBA (OIL & GAS)

OF

CENTER FOR CONTINUING EDUCATION

UNIVERSITY OF PETROLEUM & ENERGY STUDIES, DEHRADUN

APPENDIX- II

ACKNOWLEDGEMENT

This is to acknowledge with thanks the help, guidance and support that I have received during the dissertation.

I have no words to express a deep sense of gratitude to the management of YUNITCO for giving me opportunity to pursue my dissertation, and in particular Ms. Nimmi Banga, Mr. Anil Kumar Singh, for his able guidance and support.

I also thank to Ms. Anju Sharma, Mr. Afroz and Mr. Arif for their valuable support.

I also place on record my appreciation of the support provided by staffs of YUNITCO.

Finally, we are deeply grateful to all our family and friends for their constant support and encouragement throughout this whole master program.

Signature

Abdur Rahman

Royal Commission, Yanbu

Mob. +966-555077874

Mob. +91-9560779008

Email. Abdur.rahman0352@gmail.com

01 Oct. 2019

Yanbu, KSA

THE ARYA TEA COMPANY LIMITED

VENTURE OF eurasia
www.eurasiagroup.in

LETTER OF ACCEPTANCE

Guide Name: Anil Kumar Singh
Designation: Manager
Company: The Arya Tea Company Limited
Address: 37, Shakespeare Sarani, Kolkata – 700017.

Subject: -Willingness for Guiding Dissertation of Mr. Abdur Rahman, SAP ID. 500057417.

Dear Sir,

Mr. Abdur Rahman (Student Name) is registered for MBA (Oil & Gas Management) [Program name], with the University of Petroleum & Energy Studies, Dehradun in the January, 2017- December, 2018 batch.

I hereby give my acceptance to guide the above student through the Dissertation work 'Titled: A Study on the Impact of Organisational Learning on Project Portfolio success in Oil & Gas Industry", which is a mandatory academic requirement for the award of the MBA (Oil & Gas Management) degree.

Thanking You,

Yours Sincerely

Anil Kumar Singh

Date: 30th August, 2018.

Regd. Off: 37, Shakespeare Sarani, Kolkata - 700 017, India. Phone: +91 33 2287 8631/32/34/35, 4013 8600 - 40
Fax: +91 33 2287- 0925, 2287-1400 E-mail: aryatea@monkdarjeelingtea.in Website: www.monkdarjeelingtea.in
Garden Address: Arya Tea Estate, Darjeeling Railway Station, (N.F.RLY), Phone: (0354) 2251330

APPENDIX- IV

LIST OF CONTENTS

Acknowledgement..... ii

Acceptance letter..... iii

List of contents..... iv-v

List of Table..... vi

List of Figures..... vii

Abstract..... viii

Chapter 1: Introduction..... 04

1.1 Oil & Gas Industry Profile..... 05

1.2 Problem Statements..... 12

1.3 Need..... 13

1.4 Objectives..... 13

1.5 Scopes..... 14

1.6 Significance of The Study..... 15

1.7 Aim..... 15

1.8 Hypothesis..... 16

Chapter 2: Literature Review..... 17

2.1 Organizational Learning Theory..... 17

2.2 Key Components Of Successful Project Portfolio Management.....23

2.3 Steps..... 26

Chapter 3: Research Methodology..... 31

3.1 Design of Research Instruments..... 34

3.2Analysis of Data..... 36

Chapter 4: Conclusions, results and Scope of Future Work..... 56

4.1 Quality Criteria..... 61

4.2 Future Research..... 63

References..... 65

Questionnaire..... 70

List of Tables..... vi

1. Profile Respondents..... 36
2. Age..... 37
3. Occupation..... 38
4. Income..... 39

List of Figures.....vii

1. Figure 1 Gender of Respondents..... 36
2. Figure 2 Age Group..... 37
3. Figure 3 Occupation..... 38
4. Figure 4 Income..... 39

ABSTRACT

The research aims to understand the "impact of organizational learning on project portfolio success" in an Oil and Gas company. It has been proven to have contribution to business performance and they might possess a relationship where enhancing one of them will strengthen the other. Exploring on this relationship might give beneficial input to the organization in order to maximize their success. Thus, our research question is formulated as:

How much does Organizational Learning impact the Project Portfolio Success?

We developed the study's conceptual model based on the relevant previous literature. The conceptual model depicted the aim of the study to test the potential positive impact of each Learning Stocks (Individual, Group, and Organizational) on Project Portfolio Success, as well as the aim to test the potential negative impact of the misalignment between Learning Stocks and Learning Flows on Project Portfolio Success in the studied company.

We adopted quantitative research method due to the nature of research question and the ontological and epistemological assumptions we hold toward the studied phenomena. Accordingly, we used a questionnaire as an instrument to collect the required data to test the hypotheses. The questionnaire was subject to a pilot test to ensure the clarity of statements before it was distributed to the targeted respondents which are the managers and the Project Management Office personnel in the studied company.

Our findings showed that, independently, each learning stock type (Individual, Group and organizational) has a significant positive impact to project portfolio success. When we looked for the best model that gives the highest explanatory power, the result showed that the combination of all three learning stocks in one model can explain project portfolio success construct the most. Lastly, the study proved that the misalignment between learning stocks and flows gives negative impact to the project portfolio success.

We concluded the study by stating the theoretical contribution and practical recommendations based on the results such as the need to have a balanced investment in the individual, group and organizational learning stocks; ensure the alignment between the organizational units' strategies and goals; develop an "Internal Strategy Awareness Index"; and conduct a revision of the alignment between the company's strategy and the project portfolio.

Keywords: Learning Flows, Misalignment, Stocks, Organizational.
Learning, Portfolio Manage

Chapter 1: INTRODUCTION

Oil and gas (O&G) industry contributes to the economic as one of the most important sectors by taking into advantages as being the most demanding, challenging and exciting engineering and technological advances which interests the engineers at large. As the O&G industry has become financially attractive yet risky to be implemented, it is important to look into the effective way of managing the O&G projects. Hence, via literature review, this paper is emerged with the aim of reviewing the project management in O&G industry by determining the O&& execution phase as well as examining the O&G project management approach based on the typical O&G platform development stage. It is found that in the O&G project execution, a systematic for project management is developed with the aim to improve the decision making process and overall project execution, where typically, the systematic project management consist of five main phases, mainly (1) appraisal; (2) selection and definition, which are both associated with (3) planning phase; as well as (4) execution and first year operation which are associated with (5) control phase.

Oil and gas projects have been hallmarked by massive investment, enormous interfaces as well as complex engineering endeavours. There is huge attention given to the oil and gas projects from the government and public affected by previous major accident such as Deep-Water Horizon oil spill or the infamous Exxon Valdez oil spill that effects can still be felt two decades after. Those accidents, which are often considered as catastrophes, have proved that the impact of the project failure in this industry is huge. Project with scale, complexity, major investment and daunting challenge displayed by oil and gas projects will attract bigger attention from the government as well as public. It is a typical practice that government's involvement plays major role in oil and gas companies, especially in developing countries. The industry itself is a tycoon industry which dynamic may affect the whole general consumer market. Statistics reveals that generating a successful project is not easy.

Leach mentioned that as many as 30% of projects are terminated before its completion and even the surviving projects usually fail to deliver their objectives. Ernst & Young (2014) evaluated the performance of 365 oil and gas mega projects and their result shows that 64% of the projects were facing cost overruns and 73% of the projects were reporting schedule delays. The cumulative financial impacts of the evaluated projects may reach US$ 500 billion.

Given all of the above factors, we assumed that oil and gas companies will try to manage their project in a more systematic way by using a mature and high-end project management system that will ease us in conducting the research as well as give us a wider and more beneficial learning opportunity.

1.1OIL AND GAS INDUSTRY PROFILE

40% of global natural gas production by 2025 and nearly 75% of oil growth in the next six years, driven mainly by unconventional onshore supplies.The supplies of low-cost U.S. gas output should keep Henry Hub prices relatively low until the mid-2020s, the IEA said in its World Energy Outlook 2018 (WEO).

The global energy watchdog also said increasing levels of global liquefied natural gas (LNG) would begin to narrow the gap between regional prices around the middle of the next decade.

Natural gas is the fastest growing fossil fuel in the WEO's New Policies Scenario, the IEA's central outlook. Gas is forecast to overtake coal by 2030 to become the second-largest source of energy after oil.

New Policies, the most likely forecast, analyses what would happen under announced global policies and targets. The Current Policies Scenario is one in which there would be no changes in policy from today, while the Sustainable Development Scenario envisions what would happen if the renewable energy transition were to be accelerated.

Gas demand would soar worldwide under the most likely scenario. Researchers raised their gas demand estimate to 2040 by almost 100 billion

cubic meters (bcm) from the 2017 analysis to reflect rapidly growing efforts in China to replace coal generation and improve air quality.

"With demand growing by 1.6%/year, gas consumption is almost 45% higher in 2040 than today. Industry takes over from power generation as the main sector for growth.

The WEO "does not aim to forecast the future, but provides a way of exploring different possible futures, the levers that bring them about and the interactions that arise across a complex energy system," IEA Executive Director FatihBirol said. "The world is gradually building a different kind of energy system, but cracks are visible in the key pillars," including affordability, reliability and sustainability.

The movement toward a more interconnected global gas market, as a result of growing trade in liquefied natural gas (LNG), intensifies competition among suppliers while changing the way that countries need to think about managing potential shortfalls in supply. Robust data and well-grounded projections about the future are essential foundations for today's policy choices.

According to the New Policies Scenario, unconventional gas is forecast to increasingly underpin future supply, with shale and tight gas production expanding by 770 bcm to 2040 and exceed conventional gas growth.

After 2025, additional growth comes from a more diverse range of countries including China, Mozambique and Argentina.

The New Policies Scenario envisions gas demand in China tripling to 710 bcm by 2040, up 100 bcm from the 2017 analysis because of a concerted coal-to-gas switch.

China's gas consumption moves from being roughly half that of the European Union (EU) today to 75% higher by 2040. "China soon becomes the world's largest gas-importing country, with net imports approaching the level of the EU by 2040. It is also on track to surpass Japan as the largest LNG importer.

By 2040, emerging economies in Asia as a whole are forecast to account for around half of total global gas demand growth in the new policies analysis. Their share of global LNG imports is forecast to double to 60% by 2040.

The likely forecast model sees most of the growth in the global gas trade coming from LNG, with its share swelling to almost 60% by 2040 from 42%.

LNG import flows continue to go mostly to Asia, while the export picture becomes more diverse with a new roster of suppliers," researchers said. "The global gas market comfortably absorbed a recent ramp-up in LNG liquefaction capacity," but even though "new LNG investment decisions are starting to come through...it remains challenging to reconcile buyer expectations of greater flexibility on contractual terms with supplier needs for bankable longer term commitments.

The New Policies Scenario revised down its estimate for EU gas demand on the back of new targets for efficiency and renewables, "but gas infrastructure retains a strong role in ensuring security of supply, especially to meet seasonal peaks in heating demand that cannot be met cost effectively by electricity."

Even with lower gas demand, "declines in indigenous production mean that the EU's import dependence rises to 86% by 2025." Russia should remain the largest single gas source to the EU, "but the leverage that this provides is set to wane in an increasingly integrated European gas market in which buyers have access to multiple sources of imported gas."

Surging global gas trade, underpinned by the gas revolution in the United States and the rise of LNG, "continues to accelerate the transformation of gas markets," under the New Policies Scenario.

Although talk of a global gas market similar to that of oil is premature, LNG trade has expanded substantially in volume since 2010 and has reached previously isolated markets," researchers said. "Spot trading, liquidity and flexibility are all on the rise, meaning that gas is more accessible to a wider

variety of market players and is more responsive to short-term changes in supply and demand across regions.

Some uncertainty exists around the position of gas in Asia's future energy mix, "particularly since several potential new export projects do not look profitable at the price levels that have supported the recent rise in the region's gas consumption.

While strong policy efforts may establish gas as a mainstream fuel in the energy system, signs of supply security risks or frequent price spikes could push gas to the margin and increase the prospect of Asian markets relying on a mix of coal and renewables.

Uncertainty also impacts investments, and only a handful of liquefaction plants received the go-ahead from mid-2016 until mid-2018, researchers noted.

Project approvals have picked up since then, but there are signs that exporters are still searching for commercial models suited to the new market order.

The world's appetite for oil is seen growing by 1 million b/d on average to 2025 before slowing to around 250,000 b/d. Oil use for vehicle fuel should peak in the mid-2020s on stronger fuel efficiency standards and the rise in electric vehicles, with demand then driven by petrochemicals and fuel use for trucks, planes and ships.

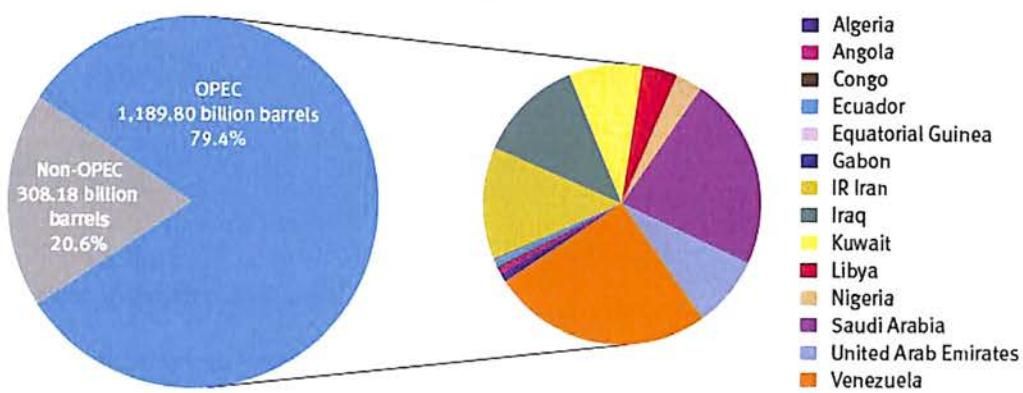
In its Sustainable Development Scenario for gas, researchers said demand would continue to grow to 2025 before flattening out at around 4.2 trillion cubic meters. Gas is seen as the only fossil fuel in which demand in 2040 is higher than today.

The dynamics are different from those in the other scenarios. Gas demand for power generation declines as gas increasingly provides peaking and balancing power rather than baseload generation. Instead, gas increases its share in the industry and transport sectors, where there is a strong impetus to curb the use of more emissions-intensive fuels.

Lower gas demand in the sustainable outlook would translate into lower prices and lower investment needs for supply, with the cumulative investment requirements amounting to $6.3 trillion.

The largest volumes of products of the oil and gas industry are fuel oil and gasoline (petrol). Petroleum is the primary material for a multitude of chemical products, including pharmaceuticals, fertilisers, solvents and plastics. Petroleum is therefore integral to many industries and is of critical importance to many nations as the foundation of their industries.

OPEC share of world crude oil reserves, 2018



OPEC proven crude oil reserves, at end 2018 (billion barrels, OPEC share)

Venezuela	302.81 25.5%	Kuwait	101.50 8.5%	Algeria	12.20 1.0%	Gabon	2.00 0.2%
Saudi Arabia	267.03 22.4%	UAE	97.80 8.2%	Ecuador	8.27 0.7%	Equatorial Guinea	1.10 0.1%
IR Iran	155.60 13.1%	Libya	48.36 4.1%	Angola	8.16 0.7%		
Iraq	145.02 12.2%	Nigeria	36.97 3.1%	Congo	2.98 0.3%		

Source: OPEC Annual Statistical Bulletin 2019.

According to current estimates, 79.4% of the world's proven oil reserves are located in OPEC Member Countries, with the bulk of OPEC oil reserves in the Middle East, amounting to 64.5% of the OPEC total.

OPEC Member Countries have made significant additions to their oil reserves in recent years, for example, by adopting best practices in the industry, realizing intensive explorations and enhanced recoveries. As a result, OPEC's proven oil reserves currently stand at 1,189.80 billion barrels.

The 10 largest oil[1] producers and share of total world oil production[2] in 2018[3]

Country	Million barrels per day	Share of world total
United States	17.87	18%
Saudi Arabia	12.42	12%
Russia	11.40	11%
Canada	5.27	5%
China	4.82	5%
Iraq	4.62	5%
Iran	4.47	4%
United Arab Emirates	3.79	4%
Brazil	3.43	3%
Kuwait	2.87	3%
Total top 10	70.96	70%
World total	100.66	

Oil and gas industry outlook

In consideration of industry low's, such as the price collapse in 2013 and major environmental disasters such as the Deepwater Horizon Gulf of Mexico Oil Spill in 2014, the oil & gas sector has now recovered.

The world's dependence on oil and gas is increasing as global economies and infrastructure continue to rely heavily on petroleum-based products. Discussions of when world oil and gas production will peak seem to be on the periphery, even amid a weakened global economy and the shrinking availability of oil. The oil and gas industry continues to wield incredible influence in international economics and politics - especially in consideration of employment levels in the sector, with the U.S. oil and gas industry supporting at least 10 million jobs.

The recovery occurred for several reasons, but the chief among them is the success of the production restraint agreement between OPEC and non-OPEC nations. In addition, developing nations such as China, Brazil and Russia are increasing exploration and production efforts. However, geopolitical considerations such as the ongoing troubles in Venezuela, Iran, and Qatar's exit from OPEC will influence oil and gas supply.

The trend towards renewable and alternative energy is another threat to traditional oil and gas companies. Coupled with the rise in pro-eco legislation and governmental pressure has meant the industry is under more scrutiny than ever.Generating electricity from solar power systems and offshore wind is becoming increasingly cheaper and cost-effective. According to IRENA, over 80 percent of newly commissioned renewable energy will be cheaper than new oil & natural gas sources.

More recently, there has been a resurgence of confidence in the industry as it enters its third year of recovery. Growth is increasing at a remarkable rate, as increased upstream production continues to have a positive knock-on effect for midstream businesses. The price of crude has also stabilised - steadying at around $50 per barrel. In addition, 100,000 jobs are expected to be created in 2019 and the number of active drilling rigs in the U.S. has increased to 780+ compared to 591 from a year ago.

The UK continental shelf also appears to be back, with the potential to unlock dozens of undeveloped discoveries with drilling prospects on the horizon. Additionally, we can expect an improved outlook for UK upstream production. The UK offshore sector is expected to improve after historical lows in the past few years as there are 16 planned greenfield projects with identified development plans and 29 announced greenfield projects forecast to start production between 2019 and 2025.

It is estimated that 30 billion barrels are consumed globally each year, primarily by developed nations. Oil also accounts for a significant percentage of energy consumption regionally from 32% for Europe and Asia, 40% for North America, 41% for Africa, 44% for South and 53% for the Middle East.

Oil & Gas IQ is the online portal dedicated to providing the latest intelligence for the oil and gas community worldwide. We explore oil and gas industry developments and facilitate the continued learning of oil and gas professionals. Our online oil and gas content we offer a slew of technical and strategic oil and gas industry conferences across Europe, Asia, the US, and the Middle East.

1.2 PROBLEM STATEMENTS

Oil and gas projects have been hallmarked by massive investment, enormous interfaces as well as complex engineering endeavours. There is huge attention given to the oil and gas projects from the government and public affected by previous major accident such as Deep-Water Horizon oil spill (2010) or the infamous Exxon Valdez oil spill (1989) that effects can still be felt two decades after. Those accidents, which are often considered as catastrophes, have proved that the impact of the project failure in this industry is huge. Oil and gas industry have a long and successful history as they are also considered as international pioneer in many areas including the development of "Production Sharing Contract" model and Liquefied Natural Gas (LNG) commercialization.

It is evidenced that all oil and gas companies manage more than one project at a time. Their project portfolio may consist of up to hundreds of complex projects, which they prioritize not only on financial goals and risks, but also increasingly based on the availability of scare resources including human talent. The organization structure consists of divisions that each has their own diverse project portfolio. They value learning process as means to grow shown by many knowledge sharing initiatives they established including: mentoring program, periodic skill assessment, improvement forum and award session, participation on national and international conferences. Given this diverse portfolio and the advancement of the knowledge sharing mentioned, the organization is considered suitable for this study.

1.3 NEEDS

It has been explained that both concept of organizational learning and project portfolio have independently given positive impact to business performance. We argued that in a project-based organization, the success of their portfolio projects is part of the business performance. Therefore, we have curiosity to see if the two concepts possessed relationship. This study would understand the impact of organizational learning on project portfolio success in Oil and Gas industry. The Organizational Learning and Project Portfolio Success have been proven to have contribution to business performance and they might possess a relationship where enhancing one of them will strengthen the other. Exploring on this relationship might give beneficial input to the organization in order to maximize their success. We would develop the study's conceptual model based on the relevant previous literature. The conceptual model depicted the aim of the study to test the potential positive impact of each Learning Stocks (Individual, Group, and Organizational) on Project Portfolio Success in oil & gas industry.

1.4 OBJECTIVE

Considering our problem background, theoretical background and knowledge gaps, the objective of the study would be to answer the following question:

To what extent does Organizational Learning impact the Project Portfolio Success?

Corresponding to the above research question, the study builds on the previous research by providing and testing theory to understand the impact of organizational learning on project portfolio success. This contribution will be proven from theoretical perspective, by investigating (and elaborating) any evidence in the literature of such role, and empirical by using a quantitative study that would support (or not) the theoretical findings. We aimed to find the best model to predict project portfolio success from organizational learning

constructs based on findings of this study. Moreover, as part of methodological contribution, future research may benefit from the method and instrument used in this study. It is also hoped that the result of this study will give the decision makers in the studied company better understanding when they aim to enhance the level of success of their project portfolio through learning process. As practical implication, the result can be used to guide them to formulate their learning strategy. Here, we provide some example of strategies that can be formulated based on our empirical findings.

1.5 SCOPE

The scope of this Dissertation is:

- To give a General Introduction, as shown above, stating the background information to the Dissertation, problem statement, aims, objectives and hypothesis.

- To conduct a Literature review on how similar or related issues, challenges and problems have been tackled and documented in the field.

- To conduct and adopt proper research methodologies to display the detailed results of the responses elicited through this research and data obtained thereby. Both quantitative and qualitative methods are used.

- To analyse the data gathered from the research and discuss findings gleaned from Literature and collected through research.

- To provide recommendations and offer corrective solutions that could contribute to the development of a more effective Procurement Strategy in view of objectives and hypothesis.

- Finally, to give a conclusion of this Dissertation and suggest a subject for further research.

1.6 SIGNIFICANCE OF THE STUDY

The main purpose of this study was to inspect the effects of organizational learning on project portfolio success. In order to do so, we examined organizational learning as learning stocks and learning flows. Learning Stock is intellectual capital, the knowledge exists in an organization on a particular time that resides within a level: individual, group, and organization (Bontis et al., 2002, p. 440). Learning Flow is how this Stock changes (flow) overtime, whether in Feed-Forward flow (that individual learning affect the group or whole organization learning) or Feed-Back flow (how the embedded learning inside an organization affect the group and individual learning) (Bontis et al., 2002, p. 445). The concept of learning stock and flow was deployed by using the Strategic Learning Assessment Map (SLAM) proposed by Crossan&Hulland (1997) that we scrutinized prior to being used on this study as part of our methodological contribution. Several items from the original study were eliminated, integrated and modified. We examined criteria for project portfolio success from various studies as well as the suitability of them to be used for this study. We inspected the definitions and related elements for criteria they used and similar criteria were integrated. The final compiled criteria of project portfolio success are: Average Project Success, Synergies, Strategic Fit, Portfolio Balance, Average Product Success and Preparing for the Future.

1.7 AIM

This study aims to understand the impact of organizational learning on project portfolio success in a multinational Oil and Gas company operated in Indonesia. The Organizational Learning and Project Portfolio Success have been proven to have contribution to business performance and they might possess a relationship where enhancing one of them will strengthen the other. Exploring on this relationship might give beneficial input to the organization in order to maximize their success.

RESEARCH QUESTIONS

From the problem statement and the objective of the study in the previous section, several research questions arise which will be elaborated in this MBA project. These research questions are:

? To what extent does Organizational Learning impact the Project Portfolio Success?

? What is the role of the learning in organization in improving the level of Projects Portfolio Success?

? What are the theoretical gaps of the study regarding the direct relationship between the two concepts?

1.8 HYPOTHESIS

Hypothesis is a conjectural statement of the relationships between two or more variables. It is testable, tentative problem explanation of the relationship between two or more variables that create a state of affairs or phenomenon. The assumptions made in order to arrive at the Hypothesis of the research are as follows:

Hypothesis thus: -

H1: There is positive impact of the Learning Stocks on the Project Portfolio Success

H2: There is positive impact of the Group Learning Stocks on the Project Portfolio Success.

H3: There is positive impact of the Individual Learning Stocks on the Project Portfolio Success.

H4: There is positive impact of the Organizational Learning Stocks on the Project Portfolio Success.

Chapter 2: LITERATURE REVIEW

2.0 PROJECT PORTFOLIO

A set of project proposals, projects, programs, sub-portfolios and operations managed together to achieve an organisation's strategic objectives.For instance, a company in the energy sector might have as business objective to "reduce carbon emissions". This portfolio could include sub-portfolios such as "improving efficiency of solar energy production" or projects such as "streamlining transport routes".

Defining portfolios allows project-rich organisations gain an overall perspective on their current and future projects and give priority access to resources to those projects that are most likely to help them achieve their strategic objectives.

Project portfolio coordinates different important projects of the company. The projects are assigned in one organization and are relevant each other (textual, resources and contractual).The term project portfolio management is also often used. It represents the management of the particular projects that are included in the portfolio. The objects are therefore to better handle their organization, to provide an overview of all projects and to define their priority, which increases their economic effectiveness. As usual, the project portfolio management starts with the organization. It is a list of the projects to be managed with the required information, which is important for analysis and comparison, and contains the duration, costs, objects, strategies etc. The project portfolio is compiled according to the listed criteria and then the projects are analyzed and estimated with the help of the given information. The projects with the high priority are strongly supported. The projects that have no need to be supported are also included in this list. The project team should regularly analyze the projects in the portfolio for the good estimation (Bobera, 2007).

2.0.0 Organizational learning

Lopez(2005) defines organizational learning as the process of "detection and correction of errors." In his view organizations learn through individuals acting as agents for them: "The individuals' learning activities, in turn, are facilitated or inhibited by an ecological system of factors that may be called an organizational learning system"

Huber (1991) considers four constructs as integrally linked to organizational learning: knowledge acquisition, information distribution, information interpretation, and organizational memory. He clarifies that learning need not be conscious or intentional. Further, learning does not always increase the learner's effectiveness, or even potential effectiveness. Moreover, learning need not result in observable changes in behaviour. Taking a behavioural perspective, Huber (1991) notes: An entity learns if, through its processing of information, the range of its potential behaviour is changed.

Weick (1991) argues that the defining property of learning is the combination of same stimulus and different responses, however it is rare in organizations meaning either organizations don't learn or that organizations learn but in non-traditional ways. He further notes: "Perhaps organizations are not built to learn. Instead, they are patterns of means-ends relations deliberately designed to make the same routine response to different stimuli, a pattern which is antithetical to learning in the traditional sense" (p. 119). Or else, he argues, Organizational Learning perhaps involves a different kind of learning than has been described in the past: "the process within the organization by which knowledge about action-outcome relationships and the effect of the environment on these relationships is developed" (Duncan & Weiss 1979). In his view, "a more radical approach would take the position that individual learning occurs when people give a different response to the same stimulus, but Organizational Learning occurs when groups of people give the same response to different stimuli."

Organizational learning is the process by which an organization improves itself over time through gaining experience and using that experience to create knowledge. The knowledge created is then transferred within the organization.Organizational learning is important for all companies, as the creation, retention and transfer of knowledge within the organization will strengthen the organization as a whole.(Wang, C. L., Ahmed, 2013)

An idea or product is conceived, the company creates the idea or product, then the company must reflect. It is through this reflection of both process and outcome that learning will occur. In addition to those actions, there are three key processes that occur in organizational learning:

- Knowledge creation
- Knowledge retention
- Knowledge transfer

It is important that the organization ensures that the knowledge gained from this process is retained within the organization and is transferable. Knowledge retained by individuals cannot be properly retained, as individuals can leave, taking their knowledge with them. Embedded knowledge can be kept within the organization and shared with all individuals.

To define organizational learning is to understand the importance of creating a learning culture within an organization. This type of learning benefits both individuals, teams, and the organization as a whole. There are also positive intra-organizational benefits to this approach.

Basten and Haamann(2018) Organizational learning (OL) enables organizations to transform individual knowledge into organizational knowledge. Organizations struggle to implement practical approaches due to the lack of concrete prescriptions. We performed a literature review to identify OL approaches and linked these approaches to OL theories. We synthesized 18 OL approaches across three domains: people (seven approaches), processes (nine), and technologies (two). Furthermore, we suggest two directions for future research: referring to the evaluation of our results and

addressing the contingencies of OL effectiveness. Our mapping guides organizations in the design of learning processes to improve long-term performance. Although relying on a single approach is unlikely to comprehensively enable OL, our mapping facilitates the combination of several approaches aligned with organizational culture and processes

2.1 Organizational learning theory

The theory of organizational learning focuses on the creation of knowledge and the use of that knowledge within an organization.

Key aspects of organizational learning theory are that learning happens when people interact while finding and solving problems.

Organizational learning theory stresses the importance of developing a learning culture within an organization.

According to this theory, organizations should:

- Develop a culture that prizes knowledge sharing
- Take time to learn the lessons that failure can teach
- Encourage employees of all levels to continue their education on a regular basis
- Allow individuals and teams to challenge the status quo of the organization

Why is organizational learning important?

The importance of organizational learning is shown by the various benefits that occur in organizations that develop a learning culture:

- Increased employee job satisfaction
- Lower turnover rates

- Increased productivity, profits and efficiency
- Developing leaders at all levels
- Enhanced adaptability throughout the organization

When organizations dedicate time and resources to developing a learning culture and implementing organizational learning, they are more competitive.

This increased ability to react quickly to fast-changing market conditions is just one of the reasons why organizational learning is important.

An organization that embraces the lessons that can be learned from failure and studies its own processes will be an organization that contains more knowledge about best practices, and will be much more able to adapt.

By creating an environment where all employees are teachers and students, there is an equal exchange of information that allows each person to contribute in a substantial manner.

What's the Managers' Role in the Learning Organization?

Senge (1990) argues that the leader's role in the Learning Organization is that of a designer, teacher, and steward who can build shared vision and challenge prevailing mental models. He/she is responsible for building organizations where people are continually expanding their capabilities to shape their future -- that is, leaders are responsible for learning.

What's the Relationship between Strategy and Organizational Learning?

Or, as Mintzberg (1987) says: the key is not getting the right strategy but fostering strategic thinking. Or as Shell has leveraged the concept of Learning Organization in its credo "planning as learning" (de Geus 1988). Faced with

dramatic changes and unpredictability in the world oil markets, Shell's planners realized a shift of their basic task: "We no longer saw our task as producing a documented view of the future business environment five or ten years ahead. Our real target was the microcosm (the 'mental model') of our decision makers." They reconceptualized their basic task as fostering learning rather than devising plans and engaged the managers in ferreting out the implications of possible scenarios. This conditioned the managers to be mentally prepared for the uncertainties in the task environment. Thus, they institutionalized the learning process at Shell.

The key ingredient of the Learning Organization is in how organizations process their managerial experiences. Learning Organizations/Managers learn from their experiences rather than being bound by their past experiences. In Generative Learning Organizations, the ability of an organization/manager is not measured by what it knows (that is the product of learning), bur rather by how it learns -- the process of learning. Management practices encourage, recognize, and reward: openness, systemic thinking, creativity, a sense of efficacy, and empathy.

2.2 THREE KEY COMPONENTS OF SUCCESSFUL PROJECT PORTFOLIO MANAGEMENT

Project Portfolio Management (PPM) is about more than running multiple projects. Each portfolio of projects needs to be assessed on its business value and adherence to business strategy.

To be successful with project portfolio management, you should select and initiate projects based on your organizational capabilities and goals. To do this, you should have a systematic method and decision process.

A good way to start is with your current projects by gathering a Project Inventory. Examples of information you will want to capture are the goal of the project, project dates, resources being allocated to the project by role and other criteria, the risk of the project (may be as simple as High, Medium, or Low); the expected return of the project, and who benefits from the project (Jonas et al, 2013).

To score and categorize projects, identify logical criterion for scoring and categorizing projects (e.g. strategy alignment, limiting risk, increasing efficiency, increasing sales, reducing expenses or process steps, Benefits/Feasibility, legal, regulatory, security, etc.). Set up a scoring mechanism for each project based on the criteria (Note: The scoring range will be agreed on for each criterion and each person can score projects based on their biases). Aggregate or average the scores from all individuals to come up with a score for each criterion for each project.

Once completed, you will now gather your project inventory including the scores along with current and forecast costs (for new projects, use expected costs). List your projects by rank order based on scores and put a line under the project sum equalling your total available portfolio budget (Note: Rank may not be based on score alone and modify your total budget based on any contingency funds you are holding). Projects above the line can be initiated or

are already in progress. Projects below the line are held in reserve should you kill or cancel other projects or come up with more money.

Key Components of Successful Project Portfolio Management: Resources

No company has the resources to meet all its business needs in the best of times and even more importantly when times are tough. Having the view of your resources across your project portfolio and being able to prioritize where to apply those limited resources is a key aspect of a PPM solution. The company with the ability to see where the resources are being applied (allocated) and apply project ranking to resource allocation will ensure the right projects are being done.

To be successful with project portfolio management, you should know where your people are working and what more can be done with available capacity. You don't have to have sophisticated tools to track your resources but you do need common methods for definition of resource information (location, department, division, etc.); competencies (skills and levels), where the resource is currently being allocated (both project and non-project); and resource development opportunities.

To start, you will define your resources by the information identified above and more if needed. Each resource will have a basic capacity to work based on their project focus and a resource calendar. You will then inventory your Total Resource Capacity (TRC) by resource and aggregate individual resource capacity by role (Note: If a resource has multiple roles, you will have to define how to split out their TRC by role or use a PPM solution providing the capability to manage the allocation of your resources).

Example: Joe works for the company 5 days a week for 8 hours of scheduled work per day so his TRC is 40 hours per week.

Next, sum up the total allocation to current projects for each resource. This is their Project Allocated Capacity (PAC). You can do the same for each role across all active or proposed projects.

Example: During this time period, Joe is allocated to 2 projects as an analyst. The Allocation to Project #1 is 30% and the Allocation to Project #2 is 70%. Joe's total PAC is 100% for this time period.

Finally, you can compute the Total Available Capacity (TAC) by computing TAC = TRC – PAC. Do for both resources and roles over time. This will give you a good idea of what capacity you are currently using and what is available. It is key to do this by role to ensure you have key roles available for projects when needed.

Key Components of Successful Project Portfolio Management: Information

To be successful with project portfolio management, you should have common procedures, applications, and training for the effective sharing of relevant information for portfolio analysis, decision making, goal setting, project status, project prioritization/ranking, and consumed and available resource capacity.

This holds true no matter what methodology you are using for your projects. Throughout the project lifecycle, from intake to closeout; be sure to communicate risks, issues, decisions, changes, lessons learned, and actions taken and document the reasoning for each. Set up logs for each project to track the information and make the information available to all stakeholders.

Manage Change at both the organization and project levels. A corporate change management (organizational change) discussion may be a great way to introduce a PPM solution and get everyone on board.

2.3 STEPS FOR IMPLEMENTING SUCCESSFUL PROJECT PORTFOLIO MANAGEMENT

1. Set the Strategy

Aligning projects to business strategy is core to project portfolio management so it makes sense to start with a clear understanding of that strategy. What does your business want to achieve and when? What solutions or internal transformations are needed to reach these goals?

Speak with senior stakeholders and executives about their definition of value and expectations from current projects.

Understanding this big picture will help you win executive support for PPM in Step 2 and develop a ranking system for projects in Step 4.

2. Win Executive Support

Introducing PPM requires a shift in mindset and processes that some individuals will resist. To reduce this friction, you need to identify key stakeholders and share your vision for PPM to win their support early on. Support should start from the top of your organization and spread through every department.

In fact, the PMI reports 90% of high-performance organizations have strong support for PPM from their CEO and C-level executives.

Remember – PPM will ultimately inform how every team conducts projects so take time to work with the right people from the outset. PPM typically employs a top-down approach with senior executives making key decisions at the portfolio level, which determine project selection and funding.

As with any change, individuals are going to have questions! Here are a few to expect:

What is project portfolio management and why do we need it?

How will the organization benefit?

Will PPM support strategy execution?
What is the short, medium, and long-term vision for PPM?
Will there be any impact on current or upcoming projects?
Will there be one or several portfolios?
How will PPM integrate with current processes?
Will we need to recruit or re-deploy resources?
Do we need to invest in any new systems or software?

3. Build the Implementation Team

Now that you have aligned your vision for PPM with organizational strategy and secured executive support, you can develop an implementation team. The team should include technical team members to help with project evaluations and new systems, portfolio managers, and other key stakeholders.

You may also need to establish a steering committee or governing body consisting of senior management and directors to help with key decisions.

Step 4. Collect Project Data

Assessing the status of ongoing projects and the project pipeline against the organization's strategy is an important milestone in your project portfolio management journey. Collecting this data will allow the team to answer essential question such as:

Number of current projects

Number of upcoming projects

Number of projects aligned to one strategic goal

The overall cost of all projects

Projected return on investment (ROI) of all projects

Estimated v actual schedules.

Gathering project data also provides an opportunity to review processes throughout the organization, for example, is the same naming convention applied to all projects? Does every project have the same documentation? Do project teams conduct and record a post-mortem when the project is finished? You will likely find project management approaches vary by department or team, which makes comparing and ranking projects a little tricky!

There are a few areas in which you need to collect data. These include:

Project data: Name; project manager; project sponsor; charter or description; schedule and milestones; risk level; resource allocation; projected ROI, and reporting schedule and tools.

Organizational data: Available resources and skills, and current and upcoming resource assignments.

It is also recommended to categorize projects by status to understand their strategic value and contribution to the organization. Categorization could look like:

Proposed projects

Approved projects (may be funded but not active)

'Grow the Business' projects

'Maintain the Business' projects

Completed projects

Cancelled projects.

How you collect and collate this data will depend on available systems. If your organization is using a collaborative project tool with project sites, reports, and centralized document repositories – such as BrightWork – this process will be easier.

5. Evaluate Your Projects

Having gathered all relevant project data in one place, it's time to evaluate the current project portfolio. Depending on your approach, you may wish to develop a ranking or scoring system to ensure the evaluation is objective and consistent. Learnings from this step will affect the creation of a new portfolio later on.

Review the portfolio and look for any obvious issues, such as duplicate projects, interdependencies between projects, high-risk projects, and over-allocated resources.

Next, probe deeper to assess how many projects align with strategic goals and the likelihood of completing these projects. Also, think about what you can realistically achieve with available resources.

6. Create Your Portfolio

Armed with your evaluation data, create a new portfolio by changing the status and priority of the projects, for example, stop any duplicate projects and start relevant on-hold projects. The goal is to create a well-rounded portfolio that meets internal requirements and delivers a healthy 'risk-reward' mix.

At this stage, you should define and document key processes, such as project request management and PPM reporting structures. Depending on existing tools, the organization may need to upgrade or purchase project portfolio management software to support the new approach.

7. Test and Refine

Before introducing the new portfolio and process to the whole organization, test your assessment with a few stakeholders and use their feedback to refine as needed. You may also need to create a user group to try any new software or processes, for example, project request procedures.

8. Project Portfolio Management Roll-out

Working with senior management, develop a roll-out program. It is advisable to start with one department and evolve with more departments or teams later on.

Depending on the scale and scope of projects, you should consider using a change management plan to help overcome any obstacles or resistance to new approaches.

Set realistic expectations with end-users and maintain regular communication so you can quickly address any unexpected issues.

9. Learn and Adapt

At BrightWork, we advocate the 'Start-Evolve' approach to project management; START by focusing on your immediate needs, and EVOLVE with experience. The same approach also works for project portfolio management.

Using agreed reporting schedules, metrics, and periodic reviews, assess your portfolio from strategic (overall portfolio results) and tactical (health and performance of individual projects) perspectives every few months. Look for short, medium, long-term opportunities to refine your PPM strategy.

This agile approach ensures the portfolio remains aligned to strategic goals and provides an opportunity to gather feedback from key stakeholders at regular intervals.

Chapter 3: RESEARCH METHODOLOGY

Research is used to confirm some existing facts or directed toward increasing knowledge. Research should have clear objectives, reliable data collection and a systematic information analysis to provide clear outcomes. The main purpose of this chapter is to discuss the research strategy decided upon in this dissertation, which will be used to answer its objectives. The chapter will also explain the different approaches to research design and methodology. *The research methodology is the blueprint for achieving the objectives, one of which is the production of the thesis.*

Both primary and secondary data has been used for the particular purpose of the study. The Survey method is the technique of gathering data by asking questions to people who are thought to have desired information

RESEARCH DESIGN

A research design is a logical and systematic plan prepared for directing a research study. It is the program that guides the investigator in the process of collecting, analysing and interpreting observations. It is a blue print for understanding project & collection of data.

There are three types of research design.

I. Exploratory research design

II. Descriptive research design

III. Causal research design

The descriptive study is a fact-finding investigation with adequate interpretation. The descriptive study aims at identifying the various characteristics of a problem under study. It reveals potential relationships between variables and also setting the stage for further investigation later

Types of Research

The survey method is used in this research. Their search gathered for a specific purpose either through personnel interviews/questionnaires etc. The data also were collected from the library reference, technical and subject based books, journals and magazines, websites and other previous studies. To know about details of HMIL data is collected from magazine, web pages etc.

NATURE OF RESEARCH

The research question will determine the nature of your research whether it is an exploratory, descriptive or explanatory (Saunders et al., 2012, p. 170). Exploratory study is useful when researcher wants to seek understanding of phenomena (Saunders et al., 2012, p. 170). It has an advantage of being flexible an able to adapt to change as new information and new insights appear. The descriptive study purpose is to gain accurate profile of events or situations and sometimes it is used as mediatory analysis to support the conclusion analysis (Saunders et al., 2012, p. 171). Explaining relationship from any given situations is the emphasis of the third category, explanatory studies (Saunders et al., 2012, p. 172). Our study falls into description-explanatory studies (Saunders et al., 2012, p. 171) since we aim to establish relationship between variables and in the way of doing so, we will use a descriptive analysis.

RESEARCH APPROACH

In this study, we reviewed existing theories and literature to be able to build the conceptual model and hypotheses stating the relationship between the studied concepts. Then we gather data to test the hypotheses empirically. Thus, we are using a deductive approach to define the relationship between organizational learning and project portfolio success. Deductive approach is consistent with our ontological view of objectivism and epistemological

orientation of positivism. The inductive approach is not appropriate for our study since the construct and measurement tools used in this study are based on existing theory.

RESEARCH METHOD

Our research will use the quantitative method by collecting numerical data from respondents through questionnaires since we aim to find a generalization regarding the effect of organizational learning to project portfolio success. The organizational learning and project portfolio success are able to be measured quantitatively using the measurement tools that have been developed by previous researchers in each fields of study. The numeric data will be used to conduct statistical tests to explore the relationship between the two concepts. We considered combining qualitative and quantitative methods in a mixed method study to have deeper understanding on the issue. Interviews could have been a complementary approach to confirm the quantitative study findings. However, this idea was reconsidered and eliminated due to limited time available.

RESEARCH STRATEGY

Research strategy is a plan taken by researchers in order to answer their research question (Saunders et al., 2012, p. 163). Experimental and survey strategies are often associated with quantitative research (Saunders et al., 2012, p. 163). We considered survey through questionnaire as the most appropriate means for our study given the different location of the researcher and the studied company. It is the most economical and effective way to gain the data according to our chosen philosophical, research approach and research method in order to reach our research purpose. The questionnaire gave us the quantitative data we need for our statistical analysis in order to figure out the relationship between variables (Saunders et al., 2012, p. 177).

The questionnaire was built by examining current existing study that correlate to the deductive approach (Saunders et al., 2012, p. 176).

RESEARCH TOOLS

The research tool includes literature search, field visit and interview. This led to formation of the questionnaire, which it consists of a structured questionnaire designed on Likert scale. It is used to collect participant's response. It consisted of the demographic information of participants and their feedback on the nine success factors. The question would be ranked from strongly disagree to strongly agree. Each element of the scale would be coded as strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5). The reason for using questionnaire comes by the fact that project management varies from project to project and also depends on the professional skills of individuals who supervise or involves in a project regardless directly or indirectly.

3.1 Design of Research Instruments

In the marketing research it has main research instruments in collection the primary data that is questionnaire.

The structured questionnaire is the research instrument to collect the primary information for this marketing research projects. A Questionnaire consists of a set of question presented to respondent for their answers. Questions may be open ended or close ended, it depends upon the Marketing Research.

Sampling Method: - Sampling is the process of selecting units (e.g., people, security agencies) from a population of interest so that by studying the sample we may fairly generalize our results back to the population from which they

were chosen. In short, the process of drawing sample from a population is known as a sampling.

Two types of sampling methods are: -

I. Probability Sampling
II. Non-probability Sampling

For Present study Non-probability sampling method is used and in that convenience sampling technique is taken for use.

Non-probability sampling it is not based on the theory of probability. It does not provide a chance of selection each population element. The merit of this type sampling is simplicity, convenience and low cost.

Contact Method: -

Once the sampling plan has been determined it must be decided how the respondent should be contacted i.e. by Mail, telephone, personal, and on-line-interview.

In this research project I have used contact methods of personal interview & telephone interview.

Research Execution

The main statistical tools used for the collection and analyses of data in this project are:

For the comparative analysis percentage analysis is used. After completion of the entire analysis, interpretation was made on the basis of Tables, Charts, and Bar graphs for representation of data.

3.2 ANALYSIS OF DATA

Profile of Respondents

Part I

Gender:

Table 1: Gender of Respondents

Gender	No. of Respondent	Percentage (%)
Male	66	66%
Female	34	34%
Total	**100**	**100%**

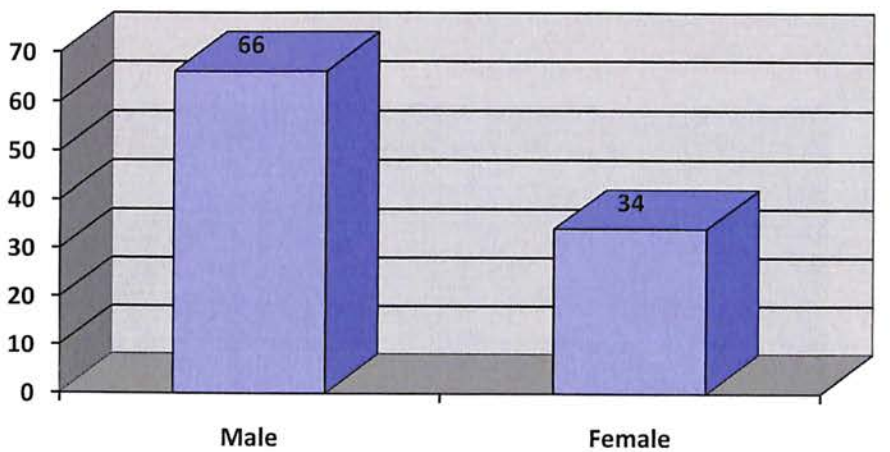


Fig 1: Gender of Respondents

Interpretation: -

The above frequency distribution table shows that 66% of respondents and 34% of female.

Age

Table 2: Age Group

Age Group	No. of Respondent	Percentage (%)
Less than 25	28	28%
25-35	44	44%
35-45	18	18%
45-65	8	8%
55 and above	2	2%
Total	**100**	**100%**

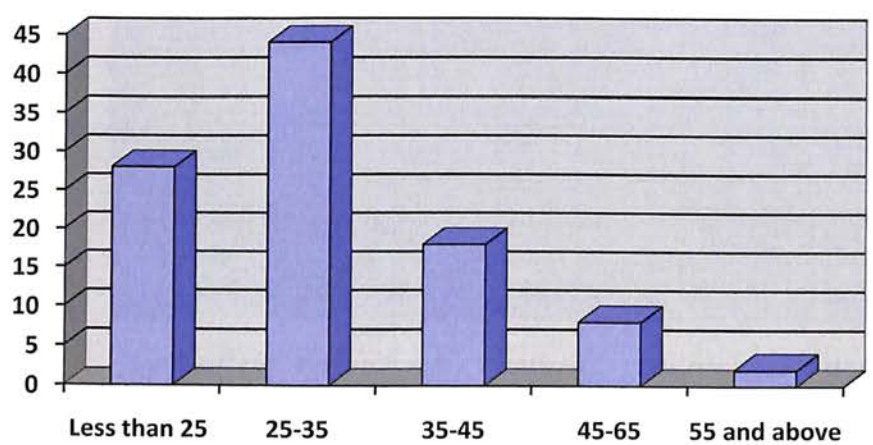


Fig 2: Age Group

Interpretation: -

The above Frequency table shows that majority 45% of customers falling under the age group of 25-35. The next major category was less than 25 (28%). the age group 35-45, 45-65 and 55 above were 3rd , 4th And 5th respectively.

Occupation

Table 3: Occupation

Occupation	No. of Respondent	Percentage (%)
Service/Job	26	26.0%
Professional	14	14.0%
Retired	3	2.7%
Businessman	53	54.7%
Housewife	4	2.7%
Total	**100**	**100.0%**

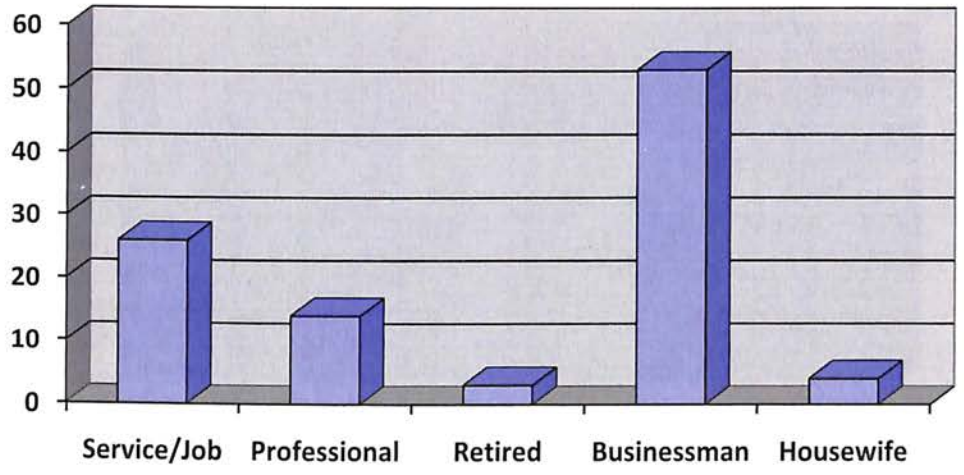


Fig. 3: Occupation

Interpretation: -

From the above frequency distribution it is found that the 54.7% customers were Businessman, 26% were service , 14% were professional and 4% were retried and housewife respectively

Income

Table 4: Income

Family Annual Income (RS)	Frequency	Percentage (%)
100,001 - 300,000	36	36%
300,001 - 600,000	48	48%
600,001 - 900,000	13	13%
Above 900,001	3	3%
Total	**100**	**100%**

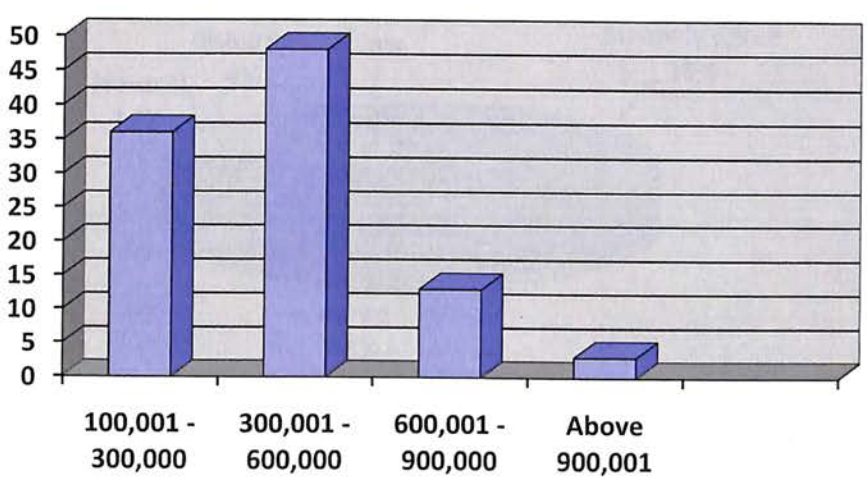


Fig. 4: Income

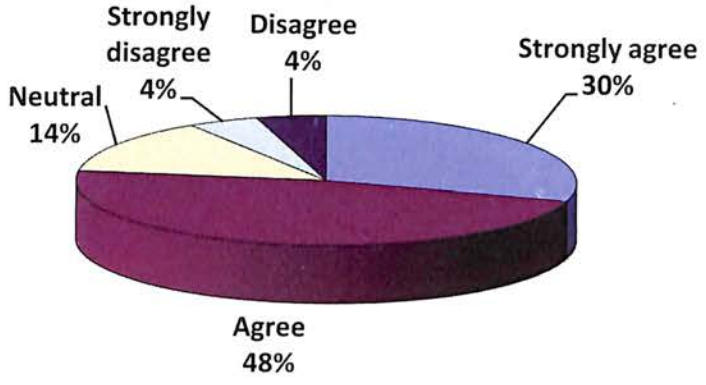
Interpretation: -

From the above frequency distribution table, it is found that majority of customers fall in group of 300,001 – 600,000 i.e. 48% and after that customers fall in group of 100,001 -300,000 i.e. 36 % and then 600,001 – 900,000 and above 900,001 respectively.

4.4 b Analysis of Responses

Individuals are current and knowledgeable about their work

Options	Number of responses	Percentage of respondents
Strongly agree	29	29%
Agree	47	47%
Neutral	12	12%
Strongly disagree	5	5%
Disagree	5	5%



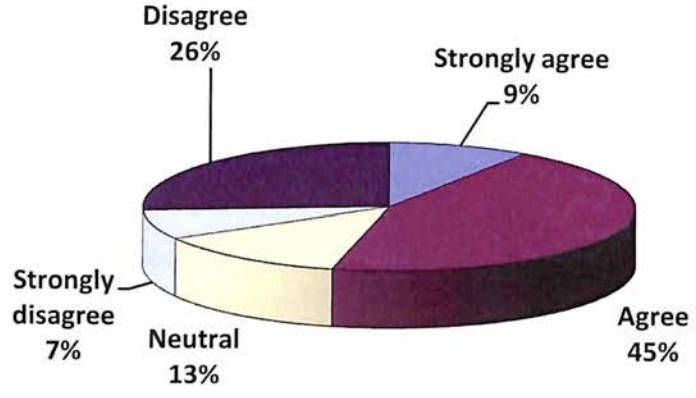
Interpreatation:-

76% of the respondents agreed that Individuals are current and knowledgeable about their work

while 12% of them are neutral.

In meetings, we seek to understand and utilize everyone's point of view

Options	Number of responses	Percentage of respondents
Strongly agree	9	9%
Agree	45	45%
Neutral	13	13%
Strongly disagree	7	7%
Disagree	26	26%

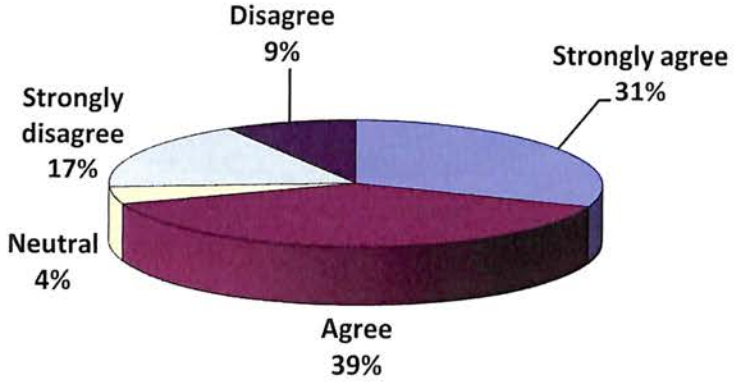


Interpreatation:-

54% of the respondents agreed that the in meetings, they seek to understand and utilize everyone's point of view. 13% the respondent neither agree not disagree. 26% of the are disagree the statement.

Groups are prepared to rethink decisions when presented with new information

Options	Number of responses	Percentage of respondents
Strongly agree	30	30%
Agree	40	40%
Neutral	4	4%
Strongly disagree	17	17%
Disagree	9	9%

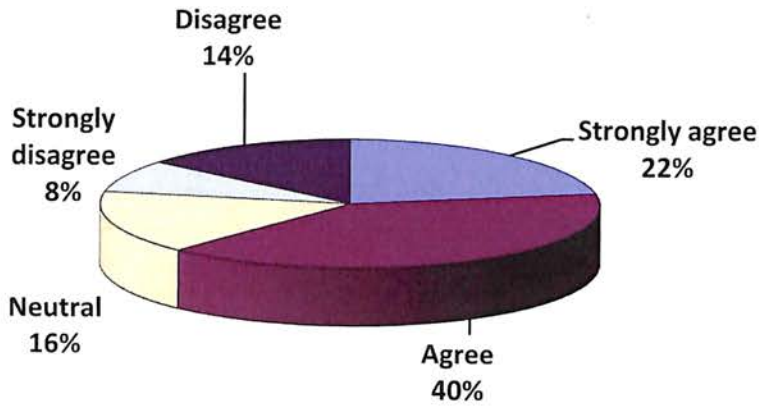


Interpreatation:-

40% of the respondent agree groups are prepared to rethink decisions when presented with new information. 30% are strongly agree that groups are prepared to rethink decisions when presented with new information. 17% of them are disagree the statement

The organizational structure supports our strategic direction and allows work effectively

Options	Number of responses	Percentage of respondents
Strongly agree	22	22%
Agree	40	40%
Neutral	16	16%
Strongly disagree	8	8%
Disagree	14	14%

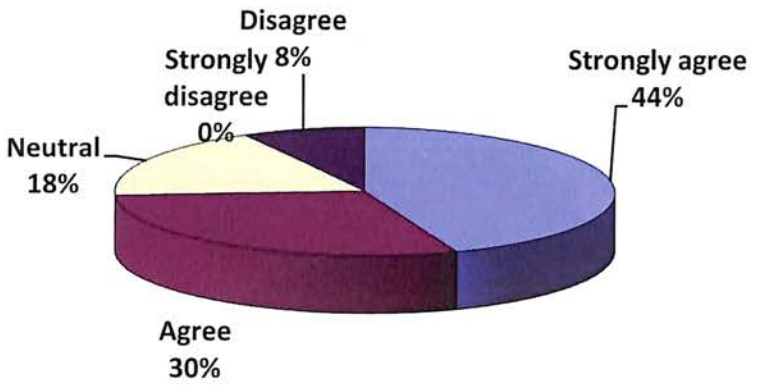


Interpreatation:-

The above graph shows that 62% of the organizational structure supports our strategic direction and allows work effectively. 22% of the respondents disagree the statement.

The organizational procedures are up to date and suitable for efficient operational activities

Options	Number of responses	Percentage of respondents
Strongly agree	44	44%
Agree	30	30%
Neutral	18	18%
Strongly disagree	0	0%
Disagree	8	8%

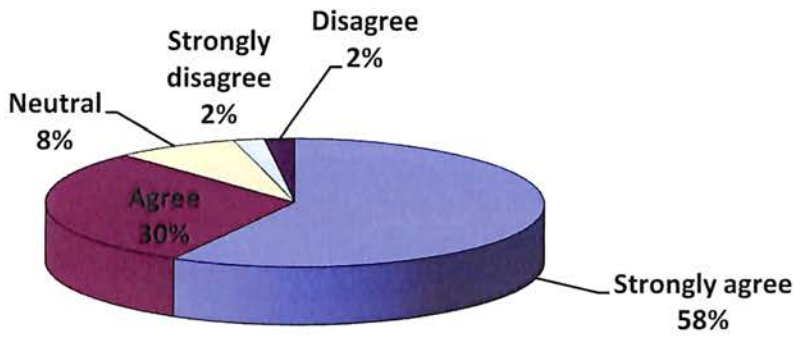


Interpreatation:-

Above graph and table shows that 74% of the respondents agree on the fact that the organizational procedures are up to date and suitable for efficient operational activities. 8% of respondents not disagree the statement.

We have the necessary systems (Quality, MIS, Project Management, etc.) to implement our strategy

Options	Number of responses	Percentage of respondents
Strongly agree	58	58%
Agree	30	30%
Neutral	8	8%
Strongly disagree	2	2%
Disagree	2	2%

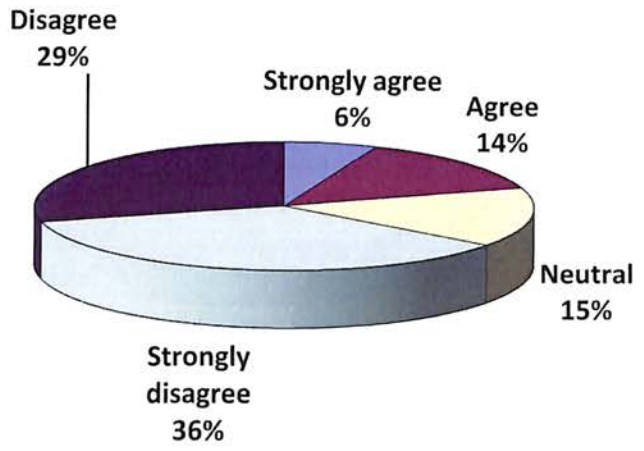


Interpreatation:-

The above survey reveals that 88% of the company has the necessary systems (Quality, MIS, Project Management, etc.) to implement our strategy while 8% of the neutral.

The company has systems in place to utilize the intelligence of its workforce

Options	Number of responses	Percentage of respondents
Strongly agree	6	6%
Agree	14	14%
Neutral	15	15%
Strongly disagree	36	36%
Disagree	29	29%

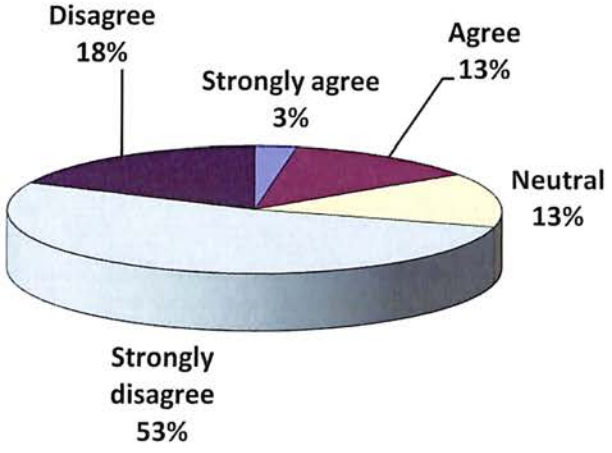


Interpreatation:-

According to our survey about 65% of the respondents said their company has systems in place to utilize the intelligence of its workforce. Only 22% of respondents agree the statement. 15% of them are neutral.

Cross training, job rotation and special assignments are used to develop a more flexible workforce

Options	Number of responses	Percentage of respondents
Strongly agree	3	3%
Agree	13	13%
Neutral	14	14%
Strongly disagree	52	52%
Disagree	18	18%

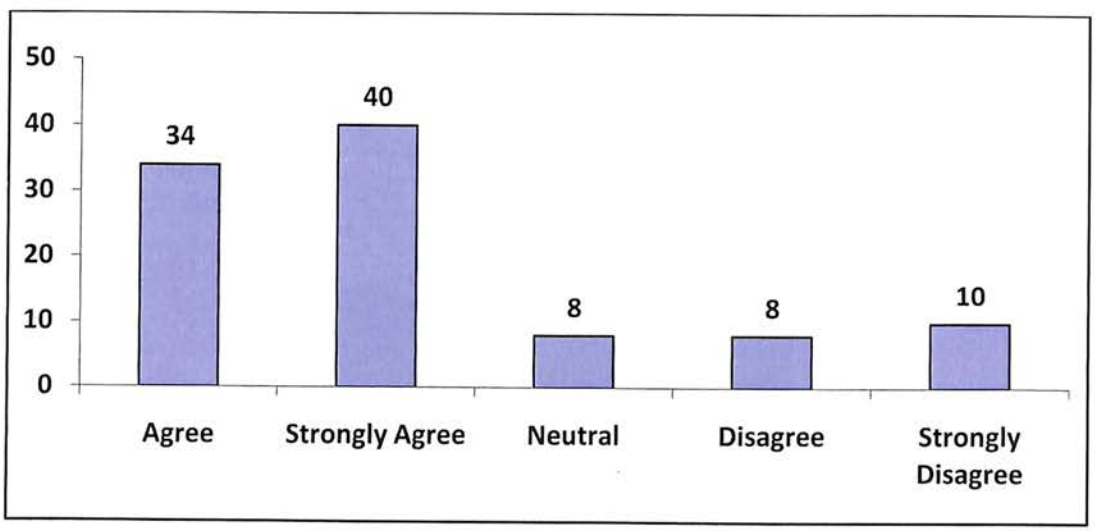


Interpreatation:-

52% of the respondents strongly disagree that cross training, job rotation and special assignments are used to develop a more flexible workforce

Information systems make it easy for individuals and groups to share information

Options	Number of responses	Percentage of respondents
Agree	34	34
Strongly Agree	40	40
Neutral	8	8
Disagree	8	8
Strongly Disagree	10	10

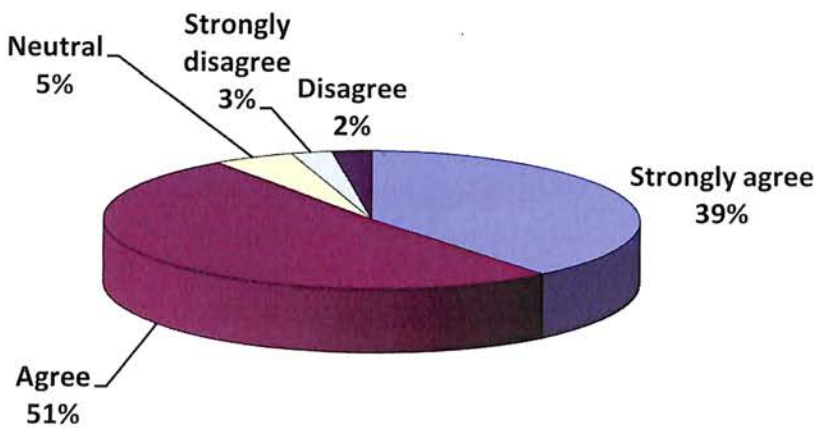


Interpreatation:-

The survey shows that 74% of the respondents agreed that Information systems make it easy for individuals and groups to share information.

On average, our projects are completed with a high degree of schedule adherence

Options	Number of responses	Percentage of respondents
Strongly agree	32	39%
Agree	42	52%
Neutral	4	5%
Strongly disagree	2	2%
Disagree	2	2%

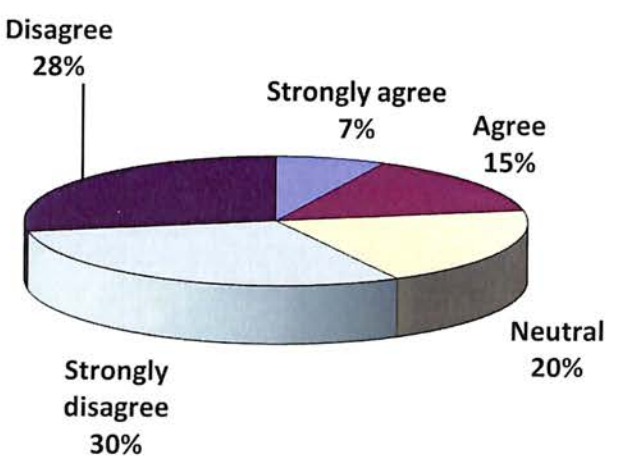


Interpreatation:-

32% strongly agreed that on average, their projects are completed with a high degree of schedule adherence while 4% agree the statement.

On average, our projects are completed with high stakeholder satisfaction

Options	Number of responses	Percentage of respondents
Strongly agree	7	7%
Agree	15	15%
Neutral	20	20%
Strongly disagree	30	30%
Disagree	28	28%

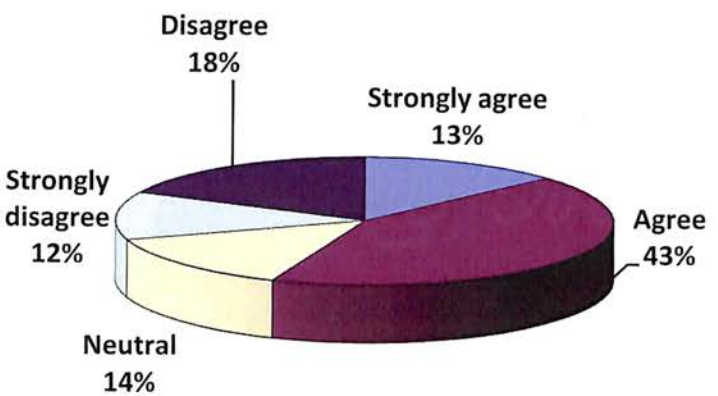


Interpreatation:-

The above diagram shows that 58% of the respondents do not favor on average, their projects are completed with high stakeholder satisfaction. Only 23% of respondents agree the statement. 20% of them are neutral.

We rigorously exploit technical synergies (e.g., shared usage of technologies, systems, facilities) between our projects.

Options	Number of responses	Percentage of respondents
Strongly agree	13	13%
Agree	43	43%
Neutral	14	14%
Strongly disagree	12	12%
Disagree	18	18%

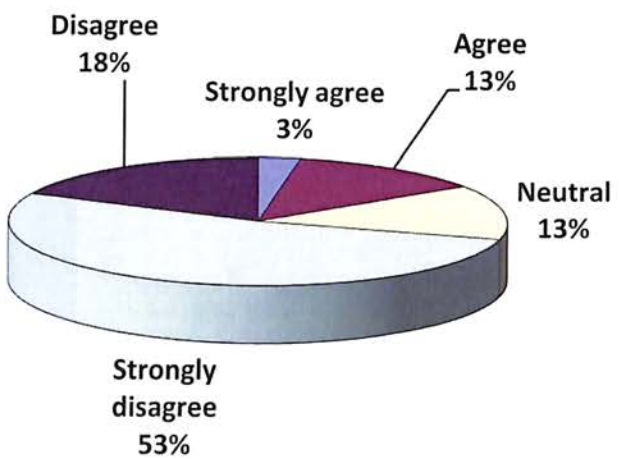


Interpreatation:-

56% of the respondents related to Oil and Gas industry said their company rigorously exploit technical synergies (e.g., shared usage of technologies, systems, facilities) between their projects.

We rigorously exploit market synergies (e.g., shared distribution channels, infrastructure, etc.) between our projects.

Options	Number of responses	Percentage of respondents
Strongly agree	15	15%
Agree	33	33%
Neutral	11	11%
Strongly disagree	30	30%
Disagree	11	11%

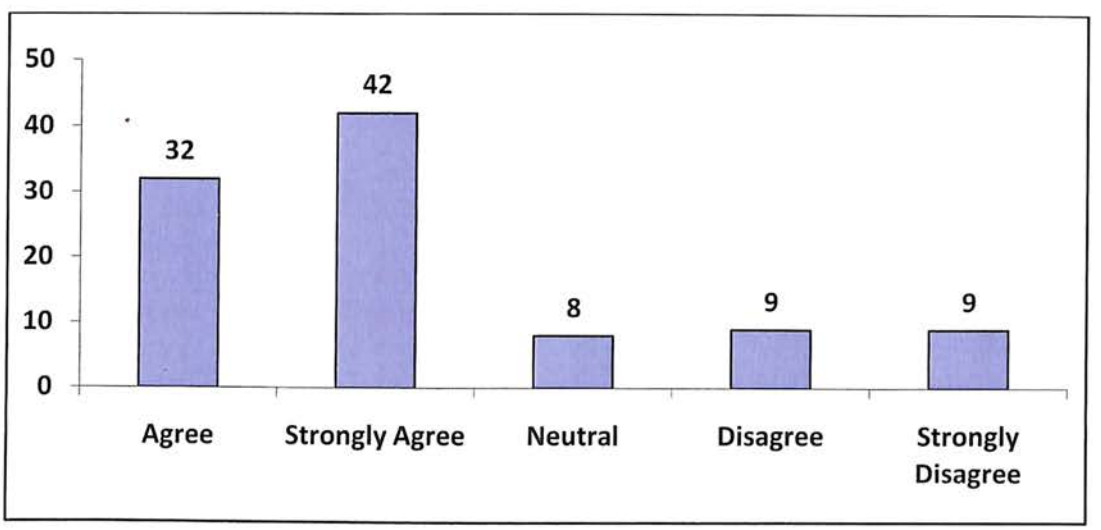


Interpreatation:-

48% of the respondents agreed that Oil and Gas companies rigorously exploit market synergies (e.g., shared distribution channels, infrastructure, etc.) between our projects.

The allocation of resources (people, time and fund) to the projects reflects our strategic objectives

Options	Number of responses	Percentage of respondents
Agree	32	32
Strongly Agree	42	42
Neutral	8	8
Disagree	9	9
Strongly Disagree	9	9

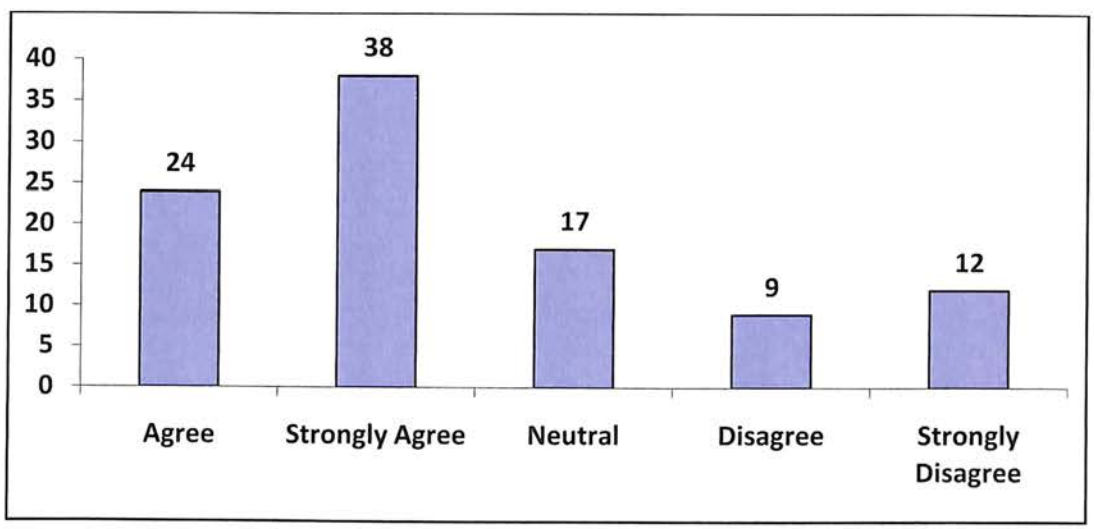


Interpreatation:-

The bar diagram reveals that 74% of the respondents agreed that the allocation of resources (people, time and fund) to the projects reflects our strategic objectives while 18% disagree the statement.

There is a good balance in our project portfolio in terms of high and low project risks

Options	Number of responses	Percentage of respondents
Agree	24	24
Strongly Agree	38	38
Neutral	17	17
Disagree	9	9
Strongly Disagree	12	12

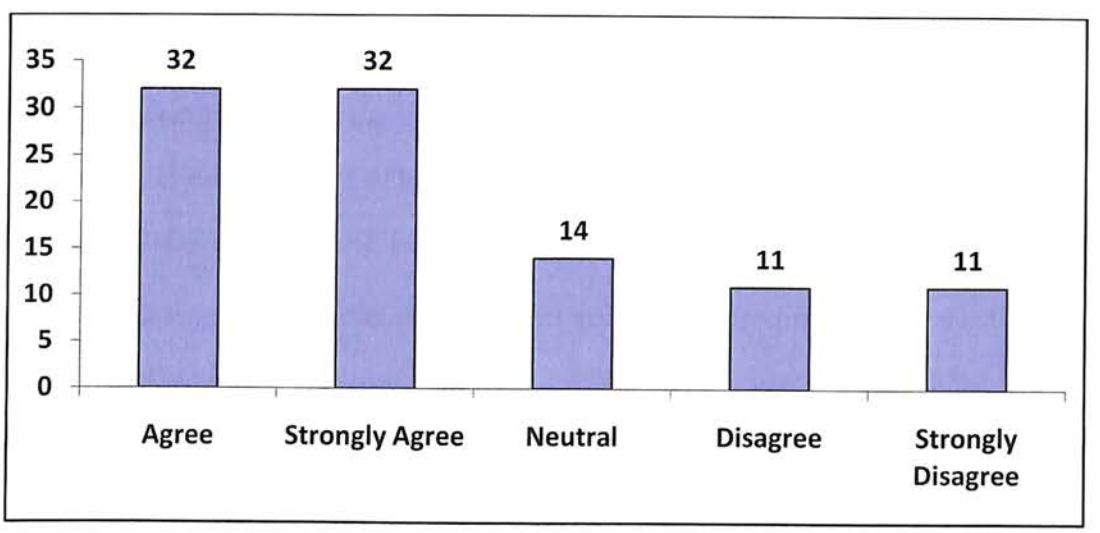


interpreatation:-

From the survey of 100 respondents in oil and gas industry 62% of the respondents said that there is a good balance in their project portfolio in terms of high and low project risks and other 21% disagree the statement.

There is a good balance in our project portfolio in terms of long- and short-term project duration

Options	Number of responses	Percentage of respondents
Agree	32	32
Strongly Agree	32	32
Neutral	14	14
Disagree	11	11
Strongly Disagree	11	11



Interpreatation:-

The above survey shows that 64% of the respondents are agreed that there is a good balance in our project portfolio in terms of long- and short-term project duration while 22% dissatisfied and 14% are neutral.

Chapter 4: CONCLUSIONS, RESULT AND SCOPE OF FUTURE WORK

The basic purpose of this study was to inspect the effects of organizational learning on project portfolio success. In order to do so, we examined organizational learning as learning stocks and learning flows. Learning Stock is intellectual capital, the knowledge exists in an organization on a particular time that resides within a level: individual, group, and organization. Learning Flow is how this Stock changes (flow) overtime, whether in Feed-Forward flow (that individual learning affect the group or whole organization learning) or Feed-Back flow (how the embedded learning inside an organization affect the group and individual learning). The study examined criteria for project portfolio success from various studies as well as the suitability of them to be used for this study. We inspected the definitions and related elements for criteria they used and similar criteria were integrated.

The final compiled criteria of project portfolio success are: Average Project Success, Synergies, Strategic Fit, Portfolio Balance, Average Product Success and Preparing for the Future.

After we conduct all steps in research process, our findings show that all of our hypothesisare proven to be true. The first conclusion is that independently, each learning stock type(Individual, Group and Organizational) gives a significant positive impact to project portfoliosuccess. When we looked for the best model that gives the highest explanatory power, theresult showed that the combination of all three learning stocks in one model can explainproject portfolio success construct the most and it became our second conclusion. The thirdconclusion is that the misalignment between learning stocks and flows gives negative impactto the project portfolio success. All resulted models show a strong fit or high explanatorypower that shows that the independent variable(s) are good predictor(s) for the dependentvariable.

The study gives theoretical contribution by providing and testing theory to understand therole of the learning in organization in improving the level of Projects Portfolio Success. Asmentioned in our first chapter, we aimed to fill the theoretical gap of the study regarding thedirect relationship between the two concepts that includes investigation of the organizationallearning from the stocks and flow perspectives that consider the dynamic nature of thelearning phenomena in organizations.

Contextually, we contribute one business study in social science in oil and gas sector that weconsidered still small in number compares to another sector such as IT or construction. Thenumber of social science study in oil and gas sector is also considered limited compared topractical studies that aim to find solution for practical daily operation.

Our research can provide insight to the studied company in its way to manage theorganization learning since it is evident, based on this study result, can contribute to projectportfolio success. The resulted models show a strong fit or high explanatory power that showsthat practitioner can use the models confidently as predictor. In this section, we aim to givepractitioners idea on how to utilize the research data in enhancing the company'sperformance. Several parts of the data may indicate the weak and strong aspects of the studiedcompany and therefore those aspects may become the focus of the formulated strategy.

The study may also give suggestions if the organization plans to put more investment inorganizational learning with the intention to enhance the success of their project portfolio.Based on the proven first hypothesis, all three learning stocks show statistically significantpositive impact. This may indicate the need to manage learning in organizations in generaland the studied company in special within a balanced view, i.e. to plan the practices oflearning based on a balanced investment in the capabilities of individuals and groups as wellas the embedding of learning in the organization's systems, structure, culture and strategyand the alignment between these non-human storehouses of learning.

From the descriptive analysis of the gathered data, it's evident that company's levels of grouplearning capabilities and practices are not on the same level of the other two types of stocks.Basically, this is due to relatively weak practices in terms of group's adaptability, readinessto rethink the decision they made when presented with new information, and the insufficiencyof group conflict resolution techniques. It is recommended that the company pays attentionto these performance areas as to maintain a balanced organizational learning.

Although organizational learning stocks scored high in general, it is also noticeable that theperception of respondents about the quality of the company's strategy (i.e. clear, documentedand fits the future) is relatively weak. This is noticed from the average value of the question"We have a Clear and Documented strategy that positions us well for the future" thatconsidered one of the lowest value as well as the value of "Strategic Fit" concept from projectportfolio success. The result indicates the need to conduct deeper investigation by thecompany to further analyze and conceive the factors behind such perception. It is suggestedthat the company establishes an "Internal Strategy Awareness Index" that measures indetailed manner the perception and feedback of the managers and staff of the company'sstrategy. The company could take proper initiatives to enhance the level of awareness index.

Wide array of recommendations could be made to address the challenge of the strategyquality, among these are:

Conduct internal "Strategy Learning and Dialogue" workshops as to continuously clarifyand explain the company's direction and in the same time conduct strategy dialogue andopen conversations about the quality and appropriateness of the corporate strategy.. It's pivotal that dialogue suspends previousassumptions and certainties to be effective (Isaacs, 1993, p. 33). Thus "Strategy Learningand Dialogue" workshops shall aim to clarify and revise the basic assumptions of thestrategy development in terms of its fitness for the future and rapidly changing trends ofoil and gas industry.

Ensure that the strategy is well articulated and documented. Documenting the strategysupports the aim of clarity and accuracy.

Ensure that the strategy is available and easily accessible internally through Intranet Portalor distributing updated strategy booklets to the relevant internal stakeholders on yearlybasis.

We consider this study a call for the research community to elaborate more on the conceptof learning stocks and flows where the distinction between them is almost neglected withinthe relevant discipline while in this study and the study of Bontis et al. (2002) the problemof misalignment between learning stocks and flows have revealed a significant negativeassociation with different aspect of organizational performance due to what we call"Learning Inertia", that is the company does not effectively and efficiently utilize its learningcapabilities.

We suggest that the studied company may manage its organizational learning within thisperspective as to achieve the optimum alignment. Practically this would be achieved throughenhancing the communication channels within the staff and between the staff and the directline of authority to achieve better flows of new ideas and feedback.

Also the alignment between the organizational departments and units goals, needs andabilities would support the goal of stocks-flows alignment. This is consistent with therecommendation of Bontis to bridge the chasm between departments suchas information systems (that focus on the flow of information), strategic management (thatsets strategic direction) and human resource management (that focuses on the developmentof human capital).

It would also be beneficial to rename and restructure the role of the training department inthe studied company to the wider comprehensive "learning" role rather than the focus on"training" of individuals which is one aspect of learning. In this case the organizationallearning department would play a two folds role a planning role which implies to setdevelopment plan on all learning level and flows, and a coordination role as to put the planinto action through

coordinating the components of the organizational learning throughoutthe organization.

We argue that the enhancement of the strategic fit in the studied company would be achievedthrough the establishment and communication of a model that governs the continuous processof cascading the company's strategic direction into divisions' and departments' strategiesgiving in parallel with the contribution of programs and projects that shall be clearlyestablished and linked to each of the cascaded objectives with the relevant weight of thiscontribution.

The core of such model is aiming to build a strategic grid of two dimensions: the first isorganizational that breaks down the strategic goals of the company into the strategic goals oflower level of the organization, and the second is logical and causal that ensures that eachproject and program is contributing to one or more cascaded strategic objectives withnumerical value of contribution and in the sometime each strategic objectives is cascaded orlinked to a higher level strategic objective and supported by one or more project or programs.

4.1 QUALITY CRITERIA

In this chapter we discuss the quality criteria of our study. We reflect on to what extent ourconcepts measured what we intended to and the consistency of our measures. Further, weexplain if our findings could be generalized to different settings and its possibilities to bereplicated in future research.

To ensure content validity, we used the measurement constructs from previous research foreach concept. We dig back to their sources when building the measurement constructs tohave a deeper understanding and rationale behind each constructs. We also verified ourmeasurement tools with academics in related subjects prior to the pilot test. The pilot test wasconducted to also enhance the content validity. From the pilot test, we found that severalstatements need to be adjusted or modified as can be seen in detail in Appendix 1 and 2.

To establish both of the criterion validity and construct validity, a good knowledge of theoryis needed so we can decide on variables we are expected to predict and a measure of therelationship between our measures and those factor. All the items used in the questionnaireas the measurement tools are derived from validated questionnaire from previous literatureand therefore we argued that those items have fulfilled their validity assumptions.

Reliability

The Reliability of the study's questionnaire is measured through the internal consistency,which entails "correlating the responses to questions in the questionnaire with each other",thus determining the consistency of the constructs. As mentioned in Chapter IV, Cronbach'sAlpha test was used to check the reliability. Based on the test result, the entire constructsused in this study passed the minimum acceptable value of 0.70 (see table 3 for completeresult) and therefore fulfill the reliability assumption.

Generalizability

We used the census approach in this study since we had the opportunity to reach everyone inthe population. As discussed earlier, in terms of gender our respondent represent almostsimilar proportion with the overall proportion of employee in the studied company. Howeverin terms of age and managerial level group, our respondent shows various deviation from thepopulation. Nevertheless the rank of the number of respondent in each category group aresimilar. Therefore, these facts give us an argument to conclude that our findings can begeneralizable and are sufficient to determine the overall concept of organizational learningand project portfolio success in the studied company. We acknowledge that our study isconducted in only one organization. This fact limits the generalizability of the result.

However we believe that our study can give preliminary insights of the effects of theorganizational learning to project portfolio success and could encourage deeper research inthe future whether on the same industry sector or other sectors.

Replication

In order to allow replication of our study we tried to clearly outline all the steps we took whenconducting this study (construction of questionnaire, sampling method, statistical test methodand tools) in Chapter IV and how we interpreted the result in Chapter V and VI. Furthermore,we also explained the rationale behind the chosen methods, concepts or tools. Thus, we canconclude that we have given a foundation for future researcher to replicate our study.

The four criteria established above shows how this study tried to achieve the quality standardof quantitative research. We consider that the study has fulfill the validity and reliabilityrequirement as well as ability to be replicated. However, there is limitation of itsgeneralizability due to the limited number of studied company.

4.2 SCOPE OF FUTURE WORK

This chapter describes the opportunity for future research based on the limitation of thisparticular study and the final result.

Most studies have limitations and as mentioned in Chapter I, this study is performed in onlyone studied company. Even though our study findings are generalizable in this organizationdue to our census method, the generalizability to other organization, industry, or geographicalareas may be limited. Therefore, we believe that using our proposed theoretical frameworkand/or applying our conceptual model in other contexts might give valuable result. Weargued that it will be appropriate to apply the conceptual model and test our hypothesis onanother organization in oil and gas industry as well as those possess project portfolio inanother sector such as construction or IT. However, there are needs to revisit each variablesespecially project portfolio success variables that might have context specific characteristicsand therefore, adjustments are needed. Applying the same model in other geographical areasmight or might not give different result due to the existence of culture difference that mightgive effect to organizational learning practice. Moreover, we created a construct andquestionnaire for organizational learning and project portfolio success based on previousstudy and those can be used separately by future research based on their needs.

This study intends to learn about the direct relationship between organizational learning andproject portfolio success. However, we thought that there can be more complex relationshipbetween the two concepts and intervening variable as well as moderating variable may exist.An intervening variables or sometimes called mediating variables suggest that there isvariable in between the two studied variables that are affected by the first variable and inturns affect the second variable,while the moderating variables

is another variables that affects the nature of the relationshipbetween the studied concepts. Communication system can beone of the example of such variables.Regarding the research design and on methodological point of view, future research can optfor different choices as the ones we made for this study. Some implications of choosingdifferent choices have been pointed out in earlier chapters.. The usage of a qualitative method or mixed method will alsogive different insight to the result deeper understanding of the rationale behind therelationship found. The longitudinal method might be appropriate when the researcher wantto test the relationship of organizational learning and project portfolio success over time. Forexample, a longitudinal study is a good approach to study effects of applying new learningpolicies by taking data before and after the policy implementation.

REFERENCES

Books and Journals

Armstrong M: Strategic Human Resource Management, Kogan Page, London, 2014.

Basten, Dirk ThiloHaamann, Approaches for Organizational Learning, Sage Journals, August 12, 2018

Adenfelt, M. (2010). Exploring the performance of transnational projects: shared knowledge,coordination and communication. International Journal of Project Management, 28(6), 529-538.

Al Hadla, M. (2013). The impact of organizational learning on strategic flexibility: A casestudy of Syriatel Mobile Telecom. Master Thesis. Damascus: Damascus University.

Bontis, N., Crossan, M. M., Hulland, J. (2002). Managing an organizational learning system by aligning stocks and flows. Journal of Management Studies, 39, 437-469.

Cooper, R. G., Edgett, S. J., & Kleinschmidt, E. J. (2000). New problems, new solutions:making portfolio management more effective. Research-Technology Management, 43(2),18-33.

Crossan, M. &Bapuji, H. (2003). Examining the link between knowledge management,organizational learning and performance. In: the 5th International Conference onOrganizational Learning and Knowledge. Lancaster University, Lancaster, 30 May- 2 June.

Crossan, M. &Hulland, J. (1997). Measuring Organizational Learning. In:Academy ofManagement Annual Meeting 1997. Boston, MA.

Chiva, R., Ghauri, P., Alegre, J. (2014). Organizational learning, innovation and internationalization: A complex system model. British Journal of Management, 25, 687-705.

Alsudiri, T., Al-Karaghouli, W., &Eldabi, T. (2013). Alignment of large project managementprocess to business strategy: A review and conceptual framework. Journal of EnterpriseInformation Management, 26(5), 596-615.

Badiru, A. B., &Osisanya, S. O. (2012). Project Management for the Oil and Gas Industry:A World System Approach. Dayton: CRC Press.

Belout, A. and Gauvreau, C. (2004). Factors influence project success: the impact of human resource management, International Journal of Project Management, 22(1),1-11 .

Bobera, D. (2007). Project Management. Subotica: Faculty of Economics in Subotica

Bapuji, H., &Crossan, M. (2004). From questions to answers reviewing organizationallearning research. Management Learning, 4(35), 397-417.

Berenson, M., Levine, D., Szabat, K. A., &Krehbiel, T. C. (2012). Basic business statistics:Concepts and applications. New South Wales: Pearson Higher Education AU.

Biedenbach, T., & Müller, R. (2012). Absorptive, innovative and adaptive capabilities andtheir impact on project and project portfolio performance. International Journal of ProjectManagement, 30(5), 621-635.

Blichfeldt, B. S., &Eskerod, P. (2008). Project portfolio management–There's more to itthan what management enacts. International Journal of Project Management, 26(4), 357-

Cooke-Davies, T. (2004). Project success. The Wiley guide to managing projects, 99-122.

Dicle, Ü. &Köse, C. (2014). The Impact of Organizational Learning on CorporateSustainability and Strategy Formulation with the Moderating Effect of IndustryType. Procedia - Social and Behavioral Sciences, 150, 958-967.

Elonen, S., &Artto, K. A. (2003). Problems in managing internal development projects inmulti-project environments. International Journal of Project Management, 21(6), 395-402.

Ernst & Young (2015). Portfolio management in oil and gas. Ernst & Young

http://www.ey.com/GL/en/Industries/Oil---Gas/EY-portfolio-management-in-oil-and-gas.

García, M. Ú., &Vañó, F. L. (2002). Organizational learning in a global market. HumanSystems Management, 21(3), 169-182.

Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Is Yours a Learning Organization?Harvard Business Review, 86(3), 109-116

Ghauri, P. N., &Grønhaug, K. (2010). Research methods in business studies: A practicalguide. Michigan: Pearson Education.

Jonas, D., Kock, A., & Gemünden, H. G. (2013). Predicting project portfolio success bymeasuring management quality—a longitudinal study. Engineering Management, IEEETransactions on, 60(2), 215-226.

Jyothibabu, C., Pradhan, B.B. & Farooq, A. (2012). The learning entities in organisationallearning – an empirical study. Int. J. Learning and Intellectual Capital, 9(1/2), 211–225.

Kaiser, M. G., El Arbi, F., &Ahlemann, F. (2015). Successful project portfolio managementbeyond project selection techniques: Understanding the role of structuralalignment. International Journal of Project Management, 33(1), 126-139.

Kerzner, H. R. (2013). Project management: a systems approach to planning, scheduling,and controlling. 11th Edition. New York: John Wiley and Sons.

Killen, C. P., Hunt, R. A., & Kleinschmidt, E. J. (2008). Project portfolio management forproduct innovation. The International Journal of Quality and Reliability Management, 25(1),24–38.

Lopez, S., Peon, J., &Ordas, C. (2005). Organizational learning as a determining factor inbusiness performance. Learning Organization, 12(3), 227-245.

Meskendahl, S. (2010). The influence of business strategy on project portfolio managementand its success—a conceptual framework. International Journal of ProjectManagement, 28(8), 807-817.

Müller, R., Martinsuo, M., & Blomquist, T. (2008). Project portfolio control and portfoliomanagement performance in different contexts. Project Management Journal, 39(3), 28-42.

Lycett, M., Rassau, A., & Danson, J. (2004). Programme management: a criticalreview. International Journal of Project Management, 22(4), 289-299.

Mainga, W., & Yan, L. (2009). An Exploratory study of Interproject learning mechanismsand Project competencies of Consultancy firms in Sweden; perceptions of projectmanagement practitioners. Master Thesis. Umea: Umea School of Business.

Mainga, W., Yan, L., Hamde, K., & Blomquist, T. (2011). Project learning and projectcompetencies in project based firms: Swedish consultancy firms as case study. WorldJournal of Management, 3(2), 94-119.

Martinsuo, M., & Lehtonen, P. (2007). Role of single-project management in achievingportfolio management efficiency. International Journal of Project Management, 25(1), 56-65.

Reich, B. H., Gemino, A., & Sauer, C. (2014). How knowledge management impactsperformance in projects: An empirical study. International Journal of ProjectManagement, 32(4), 590-602.

Salim, M., &Sulaiman, M. (2011). Organizational learning innovation and performance: Astudy of Malaysian small and medium sized enterprises international.Journal of BusinessAnd Management, 12(6), 118-125.

Santos-Vijande , M., López-Sánchez , J., &Trespala , J. (2012). How organizational learningaffects a firm's flexibility competitive strategy and performance. Journal of BusinessResearch, 65(8), 1079-1089.

Saunders, M., Lewis, P., & Thornhill, A. (2016). Research methods for business students. Pearson Education

Teller, J., Unger, B. N., Kock, A., &Gemünden, H. G. (2012). Formalization of projectportfolio management: the moderating role of project portfolio complexity. InternationalJournal of Project Management, 30(5), 596-607.

Teller, J., Kock, A., &Gemünden, H. G. (2014). Risk management in project portfolios ismore than managing project risks: a contingency perspective on risk management. ProjectManagement Journal, 45(4), 67-80.

Wang, C. L., Ahmed, P. K. (2003). Organisational learning: A critical review. The Learning Organization, 10(1), 8-17.

Websites

Nava, R. &Rivolta, T. (2013). Large project management in oil and gas. Bain and Company.http://www.bain.com/publications/articles/large-project-management-in-oil-and-gas.aspx.

https://www.naturalgasintel.com/articles/116479-lower-48-oil-natural-gas-to-dominate-global-supply-into-2020s-says-iea

https://www.opec.org/opec_web/en/data_graphs/330.htm

QUESTIONNAIRE

Individuals are current and knowledgeable about their work

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

In meetings, we seek to understand and utilize everyone's point of view

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

Groups are prepared to rethink decisions when presented with new information

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

The organizational structure supports our strategic direction and allows work effectively

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

The organizational procedures are up to date and suitable for efficient operational activities

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

We have the necessary systems (Quality, MIS, Project Management, etc.) to implement our strategy

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

The company has systems in place to utilize the intelligence of its workforce

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

Cross training, job rotation and special assignments are used to develop a more flexible workforce

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

Information systems make it easy for individuals and groups to share information

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

On average, our projects are completed with a high degree of schedule adherence

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

On average, our projects are completed with high stakeholder satisfaction

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

We rigorously exploit technical synergies (e.g., shared usage of technologies, systems, facilities) between our projects.

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

We rigorously exploit market synergies (e.g., shared distribution channels, infrastructure, etc.) between our projects.

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

The allocation of resources (people, time and fund) to the projects reflects our strategic objectives

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

There is a good balance in our project portfolio in terms of high and low project risks

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree

There is a good balance in our project portfolio in terms of long- and short-term project duration

❒ Strongly agree ❒Agree ❒ Neutral ❒ Disagree ❒ Strongly disagree