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MIDDLE EAST UNIVERSITY
Amman - Jordan

The Impact of Situational Leadership Styles on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations.

أثر أساليب القيادة الموقفية على أداء المشاريع: دراسة ميدانية على منظمات الصناعات الكيميائية الأردنية.

Prepared by:

Emad Sulaiman Al-Moghrabi

Supervised by:

Dr. Abdel-Aziz Ahmad Sharabati

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Business Administrative Department

Business Faculty

Middle East University

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This thesis of the student **Emad Sulaiman Al-Moghrabi** that study "the Impact of Situational Leadership Styles on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations" has defined accepted and approved on 28-1-2021

Committee Members:

No.	Name	Title	Signature
1.	Dr. Abdel-Aziz Ahmad Sharabati	Supervisor and Member	
2.	Dr. Abdallah Bataineh	Head of Committee	
3.	Dr. Sameer Aljabali	Internal Member	
4.	Dr. Anas Al-Sooud	External Member	

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Emad Sulaiman Al-Moghrabi

Dedication

This thesis is dedicated to my beloved family, my real source of inspiration which helped me day and night to achieve this work; to the spirit of my mother, to my father, to My wife and my kids, and my sisters for their lifetime real moral, spiritual, emotional support throughout my creative journey.

Besides, I cannot forget to thanks my best friends and Colleagues for their encouragement, motivation, and big faith to move forward.

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The Impact of Situational Leadership Styles on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations.

Prepared by:

Emad Sulaiman Al-Moghrabi

Supervised by:

Dr. Abdel-Aziz Ahmad Sharabati

Abstract

This study aimed to recognize the impact that situational leadership styles (directing, coaching, supporting, and delegating) have on project performance in terms of (cost, time, and quality) on Jordanian Chemical Manufacturing Organizations.

To actualize this study, it was applied to 98 chemical manufacturing organizations', and the population of this study was the managers who are specialized in project management. The total sample size of this study was (85) project managers. The questionnaire was used as the main tool for collecting data. After confirming the normality, validity, and reliability of the tool, the descriptive analysis was carried out, and the correlation between variables was checked. Finally, the effect was tested by multiple regressions. The result shows that the chemical manufacturing organizations implement situational leadership sub-variables and project performance dimensions. It also shows that there is a strong correlation between situational leadership sub-variables and project performance dimensions. Finally, it shows that situational leadership practices positively impact project performance, and the highest impact was for supporting and coaching. Implementing situational leadership practices on chemical manufacturing organizations are necessary. Therefore, align situational leadership within vision; mission, and goals will lead to improving performance.

The current study was conducted on Jordanian chemical manufacturing organizations. Therefore, it recommends future researchers collect more data over a longer period to check the current model validity and measuring instrument. It also recommends carrying out similar studies on other industries in Jordan and outside Jordan to ensure that results can be general. This study is one of the few studies to investigate the impact of situational leadership styles on project performance the study model was developed from various sources to formulate a new idea of situational leadership and project performance.

Keywords: Situational Leadership, Directing, Coaching, Supporting, Delegating, Projects Performance, Iron Triangle, Chemical Manufacturing Organizations.

أثر أساليب القيادة الموقفية على أداء المشاريع: دراسة ميدانية على منظمات الصناعات الكيميائية الأردنية.

إعداد: عماد سليمان المغربي

إشراف: الدكتور عبد العزيز أحمد شرباتي

الملخص

هدفت هذه الدراسة إلى التعرف على تأثير أساليب القيادة الموقفية (التوجيه، والتدريب، والدعم، والتفويض) على أداء المشاريع من حيث (التكلفة والوقت والجودة) في مؤسسات تصنيع الكيماويات الأردنية.

لتحقيق هذه الدراسة، تم تطبيقها على 98 منظمة تصنيع كيميائي، وكان مجتمع هذه الدراسة هم المديرين المتخصصين في إدارة المشاريع. بلغ حجم عينة هذه الدراسة (85) مدير مشروع. تم استخدام الاستبيان كأداة رئيسية لجمع البيانات. بعد التأكد من الحالة الطبيعية وصلاحية وموثوقية الأداة، تم إجراء التحليل الوصفي، والتحقق من الارتباط بين المتغيرات. أخيرًا، تم اختبار التأثير من خلال الانحدارات المتعددة. توضح النتيجة أن منظمات التصنيع الكيميائي تنفذ المتغيرات الفرعية للقيادة الموقفية وأبعاد أداء المشروع. كما يوضح أن هناك علاقة قوية بين المتغيرات الفرعية للقيادة الموقفية وأبعاد أداء المشروع. أخيرًا، يُظهر أن ممارسات القيادة الموقفية تؤثر بشكل إيجابي على أداء المشروع، وكان التأثير الأكبر هو الدعم والتدريب. من الضروري تنفيذ ممارسات القيادة الموقفية في منظمات التصنيع الكيميائي. لذلك، فإن إدخال القيادة الموقفية مع الرؤية؛ المهمة والأهداف ستؤدي إلى تحسين الأداء.

الدراسة الحالية أجريت في مؤسسات تصنيع الكيماويات الأردنية. لذلك، توصي هذه الدراسة الباحثين المستقبليين بجمع المزيد من البيانات على مدى فترة أطول للتحقق من صلاحية النموذج الحالي وأداة القياس. كما نوصي بإجراء دراسات مماثلة على صناعات أخرى في الأردن وخارجه للتأكد من أن النتائج يمكن أن تكون عامة. هذه الدراسة هي واحدة من الدراسات القليلة التي حققت في تأثير أنماط القيادة الموقفية على أداء المشروع، تم تطوير نموذج الدراسة من مصادر مختلفة لصياغة فكرة جديدة عن القيادة الموقفية وأداء المشروع.

الكلمات المفتاحية: القيادة الموقفية، التوجيه، التدريب، الدعم، التفويض، أداء المشاريع، المثلث الحديدي, منظمات التصنيع الكيميائي.

Chapter One: Introduction

Background:

Despite advances in the project management profession, research studies have shown that many projects fail; this failure may be complete or partial through exceeding one of the measurement columns and the determinants of the project, which are represented by time, cost, and quality. This leads us to underline the importance of the project manager's role as his responsibility on project outcomes and performance. Especially the manager's leadership style in managing these projects which has a big impact on the performance. Emphasis is placed here on studying the situational leadership styles and the impact it reflects on project performance.

From this perspective, projects recommended being managed by leaders; DuBois, et. al. (2015) said that organizations are believed that these projects require a project manager with leader traits. Since the major aim of leadership is to improve the performance of the projects. Sethuraman and Suresh (2014) said that leaders are responsible for their followers' result, output and their performance, so they hold the major responsibility. In this study, we will clarify how situational leadership styles affected project performance as the limits for situational leadership are set by the job, working people, and the relationships between the leader and the subordinates. Leadership style is rarely pure, but rather a mix based on the classical styles with different focuses depending on the situation. By using emotional intelligence, the leader can adapt his/her leadership style to the situation attentive.

Munns and Bjeirmi (1996) said that project management aims to implement projects in the right way, as the project must be well established in terms of planning, time control, quality, and cost as well. Yang, et al. (2011) said that the project model must affect the relationship between the teamwork dimensions and the success of the overall project. Adebowale, et. al. (2020) Said

that improved or poor performance of one of the dimensions would affect the performance of others. Kukoyi et al. (2020) identified the importance of cost, time, and quality by maintaining that the parameters do a big impact on project performance.

Dulewicz and Higgs (2005) said that there is a significant relationship between leadership styles and the case in which they deal with. Landis (2011) stated that each leader must work on developing a unique leadership style to meet the talents, maturity, and abilities of a certain group of employees. Kaimenyi (2014) stated leadership style role is very important in shaping and tailor the attitude and the behavior of the organization employees. Sethuraman and Suresh (2014) said that leaders should know that their followers are affected by their leadership styles Hidayat, et. al. (2020) said that situational leadership has a positive impact on employee productivity.

Thambain (2004) mentioned that there is a lack of the relationship between any leadership style and project performance. Sambasivan and Soon (2007) pointed out that the unexpected negative results that may affect any project can be best described due to, inability to achieve the targeted time, budget cost, and a pre-determined quality. According to Cirstea and Constantinescu (2012), leadership can be described as organizing a group of people to achieve a certain goal taking into consideration that the leader may have or may have not any formal authority or power. Kariuki (2018) mentioned that most of the project outcomes have not been matching with the majority of project objectives in different countries, industries, and sectors. Finally, according to Nasereddin and Sharabati (2016), there are no suitable leadership style/styles, which can fit all organizations/industries, even for the same industry there is no suitable leadership style/styles that suit all organizations worldwide. Oberer and Erkollar (2018) said that there is no best leadership style to fit all situations.

Finally, Situational Leadership Theory, or the Situational Leadership Model, is a model created by Paul Hersey and Ken Blanchard, The theory was first launched in 1969 as "life cycle theory of leadership Hersey and Blanchard (1969); after that, it was renamed to be Situational Leadership Theory in 1977 leadership Hersey and Blanchard (1977).

Based on the above introduction, it seems organizations are suffering from project results in term of cost, time, and quality; generally, it seems that there is an effect of situational leadership style on project performance.

Study Purpose and Objectives:

This study aims to investigate the impact of Situational Leadership Style on improving Project Performance on Jordanian Chemical Manufacturing Organizations. While, the main objective of this research is to provide sound recommendations to Chemical organizations and other industries, as well as, to decision-makers who concerns about both Project Management / Situational Leadership style and Project Performance. It is directed to scholars and academicians who may use it as a reference and for comparison studies. Meanwhile, the objectives' of this study summarized as follows:

1. Assess the current implementation of situational leadership styles and their impact on a project on Jordanian chemicals manufacturing organizations.
2. Build a theoretical framework about the impact of situational leadership styles' on project performance that will support researches and academics about situational leadership styles'.
3. Provide recommendations' to chemicals manufacturing organizations in Amman, Jordan about the effect of applying situational leadership styles' on project performance.
4. Raise the awareness to spread the situational leadership styles' concepts on Jordanian chemicals manufacturing organizations.

Study Significance and Importance:

This study is considered as one of few studies, which investigates the effect of situational leadership style on project performance at chemical Manufacturing Organizations in Jordan, the importance of this study comes from highlighting the styles of situational leadership and their impact on the performance.

This study is not only important for practitioners who work in the chemical industry, but also to other practitioners who work in other industries as it will highlight the importance of situational leadership impact on project performance, as well as, for scholars and researchers as it will be a useful study to enrich the future scholar and researcher studies.

Problem Statement:

Based on the experiences that I have witnessed and passed through during the work period, I have become certain that each work is limited to a specific time, cost, and quality is considered a separate project that has a manager and team members who are assigned to accomplish it. And through my participation in many projects, many of these projects do not meet one at least from the three main pillars that reflect the quality of the project's performance and considered as a project manager responsibility. Hence the idea of underlining the importance of the project manager’s role as a leader. Specifically, the leaders with situational leadership styles and their important role in the project. According to researcher experience in the field of the chemical manufacturing organizations, most chemical organizations are using projects as a system to improve their performance and they believe that situational leadership will help in improving the performance, Adebowale, et. al. (2020) said that most of the projects do not come to a successful end. Sethuraman and Suresh (2014) said that many managers stated that it is related to leadership style and teamwork, which are affected by the leadership style of project managers. Some researchers expected that the most suitable leadership style is a situational leadership style,

but it is not tested yet, such as Limsila and Ogunlana (2007) stated that transactional, transformational, and laissez-faire leadership impact work performance, but the impact of situational leadership style on performance not well researched yet. Landis (2011) mentioned that there is no standard leadership technique that may be used without any mistakes in all situations. Clarke (2012) said that the most modern and effective theory is situational leadership. Pretorius, et. al. (2017) said that project leaders must select a suitable leadership style and adapt to it based on situations. Ferdianto, et. al. (2019) said that situational leadership and change management have a significant positive effect on work motivation and performance, and work motivation has a positive influence on performance. Akunne, et. al. (2020) mentioned that the transformational leadership style and leader-member exchange and can greatly impact prosperity at work. These previous studies' results are in line with the results that this study comes with.

Therefore, this study is dedicated to studying situational leadership styles and their impact on projects performance on chemical manufacturing organizations and it is directed to answer the following main question, which stating: Do situational leadership styles affect project performance?

Study Questions:

Based on the problem statement the following questions can be derived:

1. Do Jordanian Chemical Manufacturing Organizations implement situational leadership style stages?
2. Do Jordanian Chemical Manufacturing Organizations implement project performance dimensions?
3. Is there a relationship between situational leadership style stages and project performance?

4. Do situational leadership style stages (directing, coaching, supporting, and delegating) affect the project performance of Jordanian Chemical Manufacturing Organizations?

The first and second questions were answered by descriptive analysis; the third question was answered by testing the correlation between independent and dependent variables. The fourth question was answered by testing the following hypothesis.

Study Hypotheses:

The problem questions can be answered by developing and testing the following hypothesis:

H_{01}: Situational leadership style stages (directing, coaching, supporting, and delegating) do not affect project performance of Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$).

According to situational style stages, the main hypothesis can be divided into the following sub-hypotheses:

$H_{01.1}$: Directing does not affect project performance of Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$).

$H_{01.2}$: Coaching does not affect project performance of Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$).

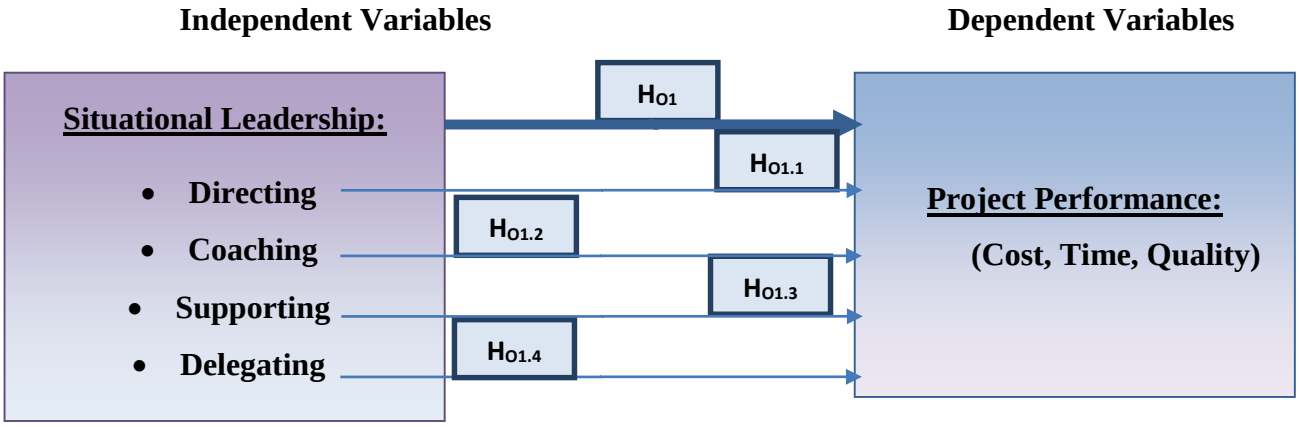
$H_{01.3}$: Supporting does not affect project performance of Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$).

$H_{01.4}$: Delegating does not affect project performance of Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$).

Study Model:

This study investigates the impact of Situational Leadership Styles as an independent variable on Projects Performance in the Jordanian chemical manufacturing organizations as the dependent variable, furthermore the impact of Situational Leadership Styles four stages on Projects Performance.

Model (1.1): Study Model



Sources: The model is developed based on the following previous studies: for independent variables (Blanchard, et. al., 1993; Schriesheim et al., 1998; Hackman Wageman; 2005; Gumusluoglu and Ilsev, 2009; Zhang, et. al., 2012 and Litchfield, 2018). For dependent variable (Munns and Bjeirmi, 1996; Limsila and Ogunlana, 2007; Reddy and Andrade, 2010; Gawali and Nare, 2014).

Operational Definitions of Variables and Dimension:

Situational Leadership: Refers to a leader's ability to exchange his behavior between task (directing, coaching) or/and emotional (supporting, delegating) direction based on task, team member maturity level, and situation.

Directing: One way communications, the leader identifies what, where, and how the task should be done and assigns tasks for individuals, supervise and control the implementation closely with extra instructions based on the situation, keeps for him the decisions making "High directing, low supporting".

Coaching: Coaching: The leader assigns the tasks for the team members, leads them to do it right, and hears their ideas and suggestions while the leader keeps control of taking decisions himself "High directing, high supporting".

Supporting: The leader encourages team involvement and contribution in decision-making becomes touchable, leader roles summarize on supervision, hear and facilitate the team way to avoid obstacles "Low directing, high supporting".

Delegating: The leader depends on the team and gives them the authority and responsibilities for performing and doing the tasks, leader withdraws from

regular support minimize his control and encourage team results, empower team decision making “Low directing, low supporting”.

Project Performance: Accomplishment measurement for a specific task based on transfer inputs to outputs that depend on three main interconnected dimensions: cost, time, and quality, as these dimensions, enable us to measure the approach adopted in managing the organization's business.

Cost: One of the major dimensions for performance measurement based on maintains and reduced all costing aspects, fixed cost, and variable cost, in proportion to the project budget and orientation of the organization.

Time: One of the major dimensions for performance measurement is based on the efficient utilization of all tools that served all-time aspects like commitments with dead-lines to avoid errors, utilizing the competencies, and using proper technology.

Quality: One of the major dimensions for performance measurement that is assessed through internal aspects like a well-trained team, proper execution, and external aspects like high-stander material, good relation with suppliers.

Study Limitations:

Human limitation: This study was carried out on project managers working in chemical manufacturing organizations.

Place limitation: This study was carried on chemical manufacturing organizations located in Amman - Jordan.

Time limitation: This study was carried out during the Corona (Covid 19) pandemic period from September to December 2020.

Study Delimitation:

The use of one industry limits its generalizability to other industries. The study was carried out in Jordan; therefore, generalizing results of one industry and/or Jordanian setting to other industries and/or countries may be questionable. Extending the analysis to other industries and countries representing future research opportunities, this can be done by further testing

with larger samples within the same industries, and including other industries, will help mitigate the issue of generalizing conclusions on other organizations and industries. Moreover, further empirical researches involving data collection over diverse countries especially Arab countries is needed.

Limitations to data access refer to the fact that data gathering through the questionnaires and annual reports is controlled to the period of these questionnaires, which may limit the quality and quantity of the data collected. And lack of similar studies in Jordan and other Arab countries.

Chapter Two: Conceptual and Theoretical Framework and Previous Studies

Introduction:

This chapter deals with the theoretical and conceptual framework of Situational Leadership Styles and Project Performance. It starts by reviewing different definitions of each element. Then, the constituents of each element, after-that the chapter highlight the competitive advantage indicators and measurements, followed by the impact of Corporate Social Responsibility on Competitive Advantage, previous models, and finally previous studies.

Independent Variable (Situational Leadership style) Definitions:

Situational Leadership: Perales, et. al. (2012) said that situational leadership must be based on that each person has his degree of maturity to develop a specific task, noting that this maturity degree will be increased by experience. According to Cirstea and Constantinescu (2012), the coaching leader who helps with switching the styles of leading is called situational leadership. Long and Spurlock (2013) stated that situational leaders may adopt several leadership styles which may depend on different factors, such as circumstances, resources, and peopled involvement, by this they will be able to gain their consumer and employees satisfaction which will reflect positively on the company profit. Afshinpour, et. al. (2013) said that the organization's job satisfaction can be increased by using several situational styles. Rani, et. al. (2013) stated that what distinguishes situational leadership is that it allows the leaders to communicate with employees openly and honestly which will lead to developing their employee's sense of competence and independence. Lynch (2015) mentioned that situational leaders evaluate team performance, participates with them to improve their performance by taking them to developmental levels. Nuryanti and Rahmawati (2016) said that situational

leadership drives employees' to improve their performance because the employees' will carry out all duties and they feel more loyalty to their company if they felt comfortable with their leader. Hutagaluh, et. al. (2020) defined situational leadership as the leader's ability to adapt to the prevailing circumstances of fast social changes.

In this study, situational leadership is defined as a leader's ability to exchange his behaves between task (directing, coaching) or/and emotional (supporting, delegating) direction based on task, team member maturity level, and situation.

Directing: Sims, et. al. (2004) said that directive when the objectives are clear when the leader is more experienced than the followers, the short term objectives, compliance, and learning are much important than followers development. Somech (2006) mentioned that the directive style is distinguished by the new leader behaviors that determine the direction for the team. Litchfield (2008) said that it is not easy to deal with many people unless they are directed to initiate. Thompson and Glasø (2015) said that directing is high-directive behavior in conjunction with low-supportive behavior. Lynch (2015) said the directing when the leader provides low supportive and high directive leadership behavior to the follower who is an interested beginner. Zigarmi and Roberts (2017) considered that all of the planning work in advance, goal setting, showing and telling how, setting priorities, setting deadlines, defining roles, and defining methods of evaluation are actions for directing. Raza and Sikandar (2018) defined directing as when the leader clarifies what, where, when, how, and by whom the task should be done. Bejer (2019) pointed out that the directing style where the leader gives particular roles and goals direction and carefully monitors the performance of the supporters to provide frequent feedback on outcomes.

In this study, directing defined as one way communications, the leader identifies what, where, and how the task should be done and assigns tasks for individuals, supervise and control the implementation closely with extra instructions based on the situation, keeps for him the decisions making “High directing, low supporting”.

Coaching: Hackman and Wageman (2005) distinguished the conditions that focus on team coaching to make achieving performance easier. Grant, et. al. (2009) stated that coaching encourages goal achievement, enhances, resilience, and increases workplace comfortability. Harper (2012) defined a leadership coach who’s working on the company’s individual’s performance by having professional training to improve their leadership skills and behavior and related to their career by a specialized coach or consultant. Lynch (2015) said that coaching when the leader provides a balance of high supporting and high directing leadership behavior to motivate and develop the confidence of the followers who are learning new skills. Thompson and Glasø (2015) defined coaching as high directive behavior in conjunction with high-supportive behavior. Raza and Sikandar (2018) defined coaching as when the leader asks questions to evaluate the employees' level of competence, allow two-way communications, makes and explain decisions. Bejer (2019) said that coaching style will be more effective with females to perform their responsibility well.

In this study, coaching is defined as the leader assigns the tasks for the team members, leads them to do it right, and hears their ideas and suggestions while the leader keeps control of taking decisions himself “High directing, high supporting”.

Supporting: Gumusluoglu and Ilsev (2009) said that innovation and using the allocated adequate resources for innovation properly support the internal climate which is an essential factor that plays an important role in the relationship. Michaelis, et. al. (2009) said that personal supports enhance the

follower's commitment to change effectively. Cheung and Wong (2011) said that leader support provides appropriate resources and handles socio-emotional concerns. Lynch (2015) said that supporting when the leader Provides high supporting and low directing leadership behavior and empowers the follower who is able of delivering effective person-centered care to the resident but remains careful about making decisions and problem-solving. Thompson and Glasø (2015) defined supporting as Low-directive behavior in conjunction with high-supportive behavior. Zigarmi and Roberts (2017) considered that all of the listening, sharing information about self, rationale building, sharing information about the organization, encouraging and asking for input, facilitation of problem-solving are actions for supporting. Raza and Sikandar (2018) defined supporting as when a leader starts building confidence, encouraging employees' to participate and decision making, and praising employees' achievements.

In this study, supporting refers to leader encourages team involvement and contribution in decision-making becomes touchable, leader roles summarize on supervision, hear and facilitate the team way to avoid obstacles "Low directing, high supporting".

Delegating: Schriesheim et. al. (1998) found that leaders prefer to delegate tasks to individuals who are trusted. Klein, et. al. (2006) stated that delegation allows beginners to practice and grow into leaders, thus improving the performance. Zhang, et. al. (2009) mentioned that team would be motivated to work more effectively through delegation. Lynch (2015) said that supporting when the leader Provides low supporting and low directing leadership behavior to the self-reliant achiever as he/she demonstrates the competence, commitment, and willingness to deliver effective person-centered care and take responsibility in making decisions and implementing them successfully. Thompson and Glasø (2015) defined coaching as low-directive behavior in conjunction with low-supportive behavior. Raza and Sikandar (2018) defined delegating as when a

leader starts decreasing control on employees' activities, supporting employees' results, and delegating employees' decision making. Abdul-Aziz, et. al (2020) said that delegating will motivate subordinates to do more than expected.

In this study, delegating is defined as the leader depends on the team and gives them the authority and responsibilities for performing and doing the tasks, leader withdraws from regular support minimize his control and encourage team results, empower team decision making "Low directing, low supporting".

Dependent Variable (Project Performance) Definitions:

Project Performance: Limsila and Ogunlana (2007) pointed out that subordinates wished for perfect work outcomes and effective performance. Anantatmula (2010) said that linked performance with a clearly defined project mission and objectives would assist in developing a formal evaluation to allocate project success. Striteska and Spickova (2012) stated that the Companies can evaluate the performance based on the external feedback or perspectives, listening to customers, suppliers, and other stakeholders. Nuryanti and Rahmawati (2016) said that when the employees' know the quantity of work, understand the quality of work, have the competence that would be excellence on work, and have a team spirit with colleagues they will be able to achieve the requested performance and fulfill the work results. Silva, et. al (2019) stated that performance, attitude, and motivation affected by leadership. Unterhitzenberger and Bryde (2019) said that success criteria in project performance would be enhanced when the project team members were treated fairly. Adebowale, et. al. (2020) said that poor productivity is one of the major performance challenges.

In this study, performance defined as accomplishment measurement for a specific task based on transfer inputs to outputs that depend on three main interconnected dimensions: cost, time, and quality, as these dimensions, enable us to measure the approach adopted in managing the organization's business.

Cost: Military and Ionesco (2006) claimed that companies that decide to go with a new path will have negative rewards by stamping continuous reputations far from its competitors, whether the objective is to have social progress or having a reputation benefit, play to win will deliver more powerful outcomes at a lower cost. Memon, et. al. (2011) said that Cost is an essential factor during the project management life cycle and one of the major parameters that define project performance. Gawali and Nare (2014) said that the organization can gain the lowest cost advantage throughout oversees all relative competitors factors. Gawali and Nare (2014) said that delayed payment from project companies' customers leads these companies to avoid giving any assurance after supply. Borse and Khare (2016) stated that misunderstanding between team members will be caused by overrunning project costs. Pollack, et. al. (2018) said that cost management contributes a broader role in most project aspects. Adebowale, et. al. (2020) said that Cost increment in the implementations of projects is largely connected with planning. Mohamud and Samson (2020) stated that the traditional models of cost behavior usually posit a linear relation between activities and costs were in the short run.

In this study, the cost is defined as one of the major dimensions for performance measurement based on maintains and reduced all costing aspects, fixed cost, and variable cost, in proportion to the project budget and orientation of the organization.

Time: Munns and Bjeirmi (1996) stated that the ending of the project management phase is strongly related to project success. Kolisch, et. al. (1998) said that any time lag should not exceed the determined acceptable time lags in project scheduling. Ng and Zhang (2008) stated that Timely delivery of the project would help to mitigate clients' financial liability and allow them to regain their investment earlier. According to Hartmann and Briskorn (2010), limited resources, as well as the prioritized relation between activities, will make

the project scheduling difficult. Memon, et. al. (2011) said that delay in time comes from lack of experience, number of changes order, and financial constraints. Stewart (2015) assesses the finalization time of the project; all processes convert to be in time frame and milestones. Borse and Khare (2016) said that all or one of project changes, weather conditions, increases in project scoop, design errors, and unexpected site conditions will lead to time overrun on the project. Mohamud and Samson (2020) said that time management has the largest effect on project performance.

In this study, Time defined as one of the major dimensions for performance measurement based on the efficient utilization of all tools that served all-time aspects like commitments with deadlines to avoid errors, utilizing the competencies, and using proper technology.

Quality: Roberts and Dawling (2002) said that ambiguity makes it difficult for competing firms to achieve quality on quick basis demonstrations that would offset the benefits of a good reputation. Reddy and Andrade (2010) detailed a description of what and how a task must do to show the quality level of achievement. McWilliams and Siegel (2011) stated that brand name will be remarkable for quality perception from a consumer point of view. Stewart (2015) said that quality clarifies the product characteristics' and features. Forsythe (2015) said that quality improvement is a significant issue in all sectors. Borse and Khare (2016) said that inappropriate training, weak planning, and rework are factors that influence quality. Unterhitzenberger and Bryde (2019) pointed out that quality assessment by asking if the project specification met the time of handover. Adebowale, et. al. (2020) said that

In this study, Quality is defined as one of the major dimensions for performance measurement that is assessed through internal aspects like a will-trained team, proper execution, and external aspects like high-stander material, good relation with suppliers.

Previous Studies:

This section includes a review from selected related previous studies and presented from oldest to newest.

Landis (2011) Study titled: **“21st Century Leadership Issues as They Pertain to a Small Private Liberal Arts University”,** addressed the leadership methods and types and discussed successful leadership in terms of the personal leadership style, and the importance of implementing high leadership techniques. In conclusion, no ideal or standard leadership technique may be used or implemented without any mistakes or errors in all situations. However, the study reflects the author’s point of view that using the methodology of inclusion must be implemented in the postmodern era leadership.

Clarke (2012) Study titled: **“Leadership in projects: what we know from the literature and new insights",** aimed to introduce the special issue on leadership in projects and to highlight salient points from the background literature in this to place the articles contained in this special issue in context. Summary of key findings from the literature relating to leadership in projects is provided highlighting limitations with previous research and challenges for research in this area. The study result showed that the need to examine far more mediator and moderator variables in future research using a style perspective given the variable contexts affecting project and leadership effectiveness. Besides, alternative perspectives on the nature of leadership may better accommodate the increasing environments of complexity in which projects find themselves.

Cirstea and Constantinescu (2012) study titled: **“Debating about Situational Leadership”,** analyzed the daily life events, which need to be adopted by the leadership style. Leadership style requires several abilities, capabilities, and skills including communication abilities. The methodology of this study was implemented from the previous studies. The study is addressing

the leadership styles, which must be used and implemented by the leaders once; needed comparing with what leadership is about. The study found that situational leadership is a more likely and effective style.

Rani, et. al. (2013) study titled: **"Situational Leadership – An Emerging trend of Leadership Style (A Case of Software Industry),** was trying to evaluate and measure the usage of the leadership situation, how effective it is, and attempt to measure primary manager's flexibility and ability to change the leadership style based on the followers or team member's needs. The sample size of 100 is selected randomly from the software industry and a structured questionnaire is administered to collect the inputs from the group. as a conclusion of the study, many arguments said that most of the peoples' needs are changing continuously as their abilities are increasing constantly, knowledge, experience, skills, and willingness (such as responsibility, commitment, and motivation) for accomplishing their work.

Afshinpour, et. al. (2013) study titled: **"The Role of Situational Leadership Style in Employee Satisfaction in an Iranian Oil Company",** aimed to evaluate the roles of leadership style and preferences comply with employee satisfaction along with the supervision of the employees and leaders of the Iranian oil company. The authors used a questionnaire to collect data; the sample size was 496 employees. Regression analysis and analyses of variance (ANOVA) for leadership styles and job satisfaction as a function of or related to various variables were implemented using Statistical Package for the Social Sciences (SPSS). As a result, the situational leadership style may consider as the most proper style for the leaders in the oil company.

Kaimenyi (2014) study titled: **"The Influence of Conflict Management Styles on Leadership Approaches within Small-scale Businesses in Kenya",** the objective was to build the relationship between conflict management styles of business owners and managers of small businesses and the leadership

approaches employed. An empirical survey was used to collect the data from 45 companies in Kenya. Data analyzed and interpreted by using SPSS. The result is characterized by a relationship between conflict management styles and leadership styles.

Pasaribu (2015) study titled: **"The Situational Leadership Behavior, Organizational Culture and Human Resources Management Strategy in Increasing Productivity of Private Training Institutions",**

The study aimed to evaluate the influence of situational leadership behavior on organizational culture and the implementation of the strategies for human resources to improve productivity in private vocational training institutes. A questionnaire was used to collect the data, documentation, and interviews, while the sampling technique used a Likert Summated Rating. The unit of analysis was the field of operation and delivery of training services and fields of administration. Data analysis is using path analysis. Results showed the there is a significant correlation between situational leadership behavior and organization culture which facilitate the implementation of human resource strategies and influence positively on productivity.

Bhargavi and Yaseen (2016) study titled: **"Leadership Styles and Organizational Performance",** this study aimed to analyze the influence of four types of leadership (autocratic, democratic, Delegating, and situational) on organization performance. A questionnaire which was included the ability to measure the leaders' perception of which the effective leadership style to enhance the leadership, was distributed to 55 respondents on leaders from the government and police sector. Analysis of data was carried out using SPSS. The result showed that the priority of leadership style being more effective on the organizational performance is recorded as follows: (democratic 58.2%, situational 30.9%, autocratic 7.3%, and Delegating 3.6%).

Nuryanti and Rahmawati (2016) study titled: **"The Influence of Situational Leadership and Work Environment towards Employees' Performance",** this study aimed to clarify the situational leadership, work environment, and employees' performance, and evaluate the impact of situational leadership and work environment on employees' performance in service and development sector, and find out the relationship between situational leadership and work environment. This study targeted the employees of the Services and Business Development sector (LPU) of RRI Bandung. The research type is descriptive and verification. The method used is the explanatory survey method with 26 people as saturated sampling. Technical analysis of the data used in this research is multiple linear regressions with SPSS 21.0 for windows. The result of this study showed that situational leadership has a positive influence on employees, performance, and the work environment has a positive influence on employees' performance, and both situational leadership and work environment have a positive effect on employees'' performance, and there is a positive relation between situational leadership and work environment.

Wanyama, et. al. (2016) study titled: **"Effect of Leadership Style on Growth of National Government Constituency Development Fund Projects in Trans Nzoia County, Kenya",** the study aimed to evaluate the effect of leadership style on the growth of NGCDF projects in Trans Nzoia County, Kenya. This study was informed by situational leadership and trait theories. The descriptive survey design was used for this study. The target population was employees from 25 NGCDF projects in Trans Nzoia County, Kenya. The study used random sampling to select a sample of 174employees. Structured questionnaires were used for data collection. The reliability test of the instruments was done using the Cronbach alpha coefficient. Multiple regression analysis was the appropriate method to examine the relationship between independent variables and dependent variables in this study. The results showed

insight to project administrators on how much impact the instituted change has on the successful implementation of construction projects.

Ghazzawi, et. al. (2017) study titled: **"Situational Leadership and Its Effectiveness in Rising Employee Productivity: A Study on North Lebanon Organization",** aimed to evaluate the impact of situational leadership on employee motivation and to clarify how situational leadership affects the productivity of employees inside organizations. A quantitative data collection approach was used to study the relationship between both of these variables. A questionnaire was filled by 150 respondents who work at hospitals in North Lebanon. SPSS was used to analyze the collected data, through the factor reduction technique to expose the relationship between situational leadership and employee productivity. A regression equation is generated to find how the change in one or more factor affects the other one(s). The result showed that there is a positive relationship between situational leadership and employee productivity; therefore the studied hypotheses were accepted.

Mwakajo and Kidombo (2017) study titled: **"Factors influencing project performance: a case of county road infrastructural projects in Manyatta constituency, EMBU country, Kenya",** this study aimed to assess the factors influencing projects performance in road infrastructural projects in Manyatta constituency, Embu County, Kenya by determining how project financing affect project performance, determine the influence of project leadership on projects performance, establish how stakeholder participation affect project performance, and determine how political environment affect project performance. A descriptive survey design was used for this study and the Target population was 153 and the researcher targeted Active road contractors using a simple random sampling method Simi structured questionnaire distributed to 126 respondents including active road contractor. Frequency and percentages were used for the descriptive data. Coded broadsheets thereafter

were used for extracting data from the returned questionnaires. Data analyzed by SPSS. Study results showed that the prevailing political and legal environment, stakeholder involvement, project leadership, and availability of finances affects project performance; the study also showed that the truly successful projects are those that deliver what they were supposed to, achieve results and meet stakeholder expectations.

Buba and Tanko (2017) study titled: **"Project Leadership and Quality Performance of Construction Projects",** this study aimed to evaluate the influence of leadership styles on quality performance criteria of public projects in Nigeria. Three groups of respondents received and filled the questionnaires which were represented by 43 who are project managers in Nigeria. Likert Scale was used to measure the independent variables (leadership style): facilitative, coaching, delegating, and directing; and the level of achievement of projects based on the dependent variables (quality and functional performance criteria) which are: achieving highest aesthetic quality; and functional building that fits its purpose. The study results showed that the project managers in Nigeria mostly used directing style amongst the leadership styles which has the most impact on quality performance, and the results also showed that relationship between Directing leadership styles and the performance criteria of achieving the highest and functional building that fits its purpose will be beneficial to the Nigerian construction environment.

Gondo, et. al. (2017) study titled: **"The effect of situational leadership style, work ethic, and work motivation on the employee's performance (Study on the employees Departement of Production in PT. Gudang Garam Kediri)",** aimed to evaluate how situational leadership style, work motivation, and work ethic impact on employee performance. The random sampling method was used to get 100 respondents from the total universe of the study population of 25000. Descriptive statistics and multiple linear regression were used to

analyze the data. The result showed that situational leadership style, work motivation, and work ethic have a significant impact on employee performance, which influences the company performance.

Raza and Sikandar (2018) study titled: **"Impact of Leadership Style of Teacher on the Performance of Students: An Application of Hersey and Blanchard Situational Model"**, this study evaluated the influence of the leadership style of teachers' on student performance through the Hersey and Blanchard situational model. Data collected from 80 students in Lahore city from 8th grade by using a pretest-posttest experimental design. Descriptive and inferential statistics were applied for data analysis. The results showed that the readiness level for students by using telling and selling techniques reflect positive scores and perform better than participating and delegating techniques.

Kariuki (2018) study titled: **"The Effect of Project Manager's Leadership Style on Performance of Water Projects in Kenya",** determined the influence of project manager leadership style on project performance (time and cost) of water projects in Kenya. The study analyzed data for 102 water projects which were completed between 2011 and 2014. The result showed that the project manager leadership style strongly affects project time performance.

Reza, et. al. (2018) study titled: **"The Influence of Situational Leadership, Organizational Culture and Training on Employee Performance and Work Motivation of Millenial Generation at the Inspection Office of BRI Malang"**, this study aimed to exanimate the effect of situational leadership, training, and organizational culture on work motivation and employee performance at the Inspection Office of BRI Malang. The partial least square method (PLS) was used to analyze the sample of 63 Millennial auditors. The result shows that situational leadership has a significant effect on work motivation and employee performance, while the training and organization

culture has an insignificant effect on employee performance and the training has a significant effect on work motivation while the organization culture not.

Oyelude and Fadun (2018) study titled: **"Situational Leadership Style in Managing Conflicts in an Organization: A Case of Nigerian Eagle Flour Mill",** aimed to manage any conflict that may arise within the organization effectively and the need of using the situational leadership approach is high. The authors used a questionnaire distributed in Nigerian Eagle Flour Mill to a sample size of 82. The study summarized that the situational leadership approach has been used to resolve conflicts between people inside the organization.

Thompson and Glasø (2018) study titled: **"Situational leadership theory: a test from a leader-follower congruence approach"**, this study aimed to measure the extent of compatibility between leader assessment and the follower self-assessment to define the optimal leadership style and follower commitment and competencies. Survey data targeted the supervisors and employees in business organizations in Norway were collected and analyzed to check the prediction mention in the situational leadership theory. The result showed that the situational leadership theory is applicable when the leader and follower assessment was matched, and support the leader's assessment and direction rather than self-assessment.

Setyorini, et. al. (2018) study titled: **"The effect of situational leadership style and compensation to employee performance with job satisfaction as intervening variable at PT Bank Rakyat Indonesia (Persero), Tbk Denpasar Branch",** the study aimed to analyze the influence of situational leadership style and compensation on employee performance with job satisfaction as an intervening variable. The study was done at PT Bank Rakyat Indonesia Denpasar Branch Office with population and sample of all employees working at PT Bank Rakyat Indonesia (Persero) Tbk Denpasar Branch Office, Questionnaire distributed to 64 employees to collect the data. The data analyzed

by using a model of the structural equation based on variance is known as Partial Least Square (PLS) analysis. The study results showed that situational leadership impact positive and significant effect on job satisfaction, compensation impact positive and significant effect on job satisfaction, job satisfaction has a positive and significant effect on employee's performance, situational leadership has positive and situational leadership impact positive and significant effect on employee performance through job satisfaction, compensation impact positive and significant effect on employee performance through job satisfaction. Compensation has impacted a negative effect on employee performance.

Setiawan, et. al. (2019) study titled: **"The study of situational leadership style on an Indonesian construction company",** the study is aimed to determine the suitability between the situational leadership style and the type of employee in a construction company. Employee circumstances were represented by their competence maturity level and commitment. This study used a descriptive statistical analysis through a questionnaire survey and interview to one of the biggest construction companies in Indonesia which did four big building projects in 2017 in Bandung, Indonesia. The result summary of the four projects shows suitability between the type of employee in supporting (moderate competence level and variable commitment level (D3)) and the project's manager situational leadership style which is classified as "participation", which is suitable (S3). Concerning the situational leadership theory, this convenience could produce a great situation between the project manager and his/her employee, enhancing the accomplishment of the project.

Ferdianto, et. al. (2019) study titled: **"The role of work motivation as a mediation influence of situational leadership style and change management on performance of employee in bank mandiri jember",** this study aimed to test the influence of situational leadership style and change management with

work motivation as a mediation on the performance of microcredit sales of bank Mandiri Jember employees. This study applied path analysis to test the effect of situational leadership style, work motivation; change management, and performance by using a sample of 116 respondents. The results showed that situational leadership and change management have a significant positive effect on work motivation and performance, and work motivation has a positive influence on performance.

Silva, et. al (2019) study titled: **"Managers' leadership style and the commitment of their team members: associating concepts in search of possible relations",** this study aimed to examine how managers' leadership styles intervene with the commitment of their team members. Five hypotheses were tested to identify relationships between the leadership style and the components of the commitment. A quantitative method was used and the survey was conducted. Two questionnaires were distributed and collected from 527 respondents. Descriptive statistics, CHAID analysis, and Pearson's correlation were used in the analysis. The study results showed that there is a significant correlation between the managers' leadership styles with relationship orientation and the affiliate component of commitment, there is a positive relation between situational leadership style and affective commitment, as well as between this style and the general commitment, finally there is a positive relationship between the task orientation and the normative commitment.

Ruslan, et. al. (2020) study titled: **"The Influence of Principal's Situational Leadership and Teacher's Professionalism on Teacher's Performance",** this study tried to exanimate the impact of both teacher's professionalism and situational leadership style on teacher's performance. A questionnaire was distributed to 32 teachers from three primary schools. SPSS program was used to analyze data. Results show that there is an impact of the situational leadership style principals' on the teachers' performance.

Hidayat, et. al. (2020) study titled: **"The effects of situational leadership and self-efficacy on the improvement of teachers' work productivity using correlation analysis and SITOREM",** determined a positive correlation of self-efficacy and situational leadership with the development of teacher work performance. Data collected from 105 teachers. Data tested by using a quantitative method with correlation analysis. Results showed that self-efficacy and situational leadership have a positive impact on teachers' productivity.

Wuryani, et. al. (2020) study titled: **"Analysis of decision support system on situational leadership styles on work motivation and employee Performance",** aimed to test the employee's appraisal performance by using situational leadership with work motivation as a variable through a decision support system (DSS). A saturated sample technique from respondents was used in this quantitative research. Smart PLS 3.0 was used to analyze the data. The result showed that the decision support system in situational leadership does not have a positive contribution to employee performance.

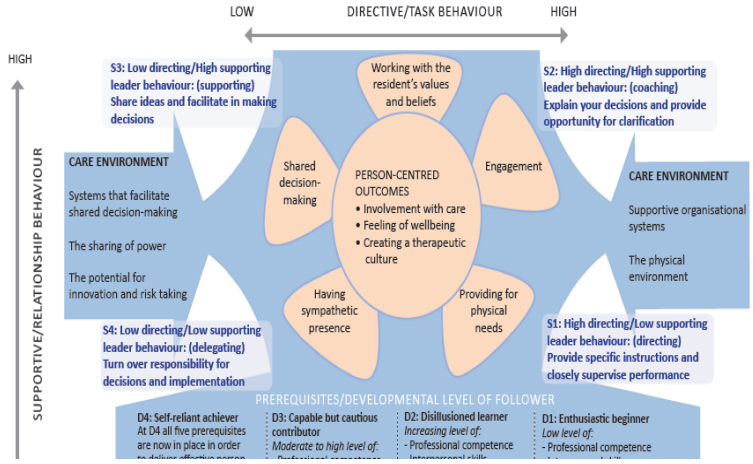
Wanto (2021) study titled: **"Relationship of Situational Leadership Style of Principal and School Climate to Teacher Integrity PAUD at Gambir Sub-District Central Jakarta",** this study aimed to investigate the relationship between the school climate and the principal's situational leadership style together with the integrity of PAUD teachers in Gambir Sub-District of Central Jakarta. Quantitative research with correlational techniques was included in this study. The study population was all PAUD teachers in Gambir Sub District of Central Jakarta which numbered 63 people. Questionnaire methods and documentation was used for data collection. Inference and descriptive analysis were used to analyze the data. Results showed that the better the principal's leadership style and school climate the better the integrity of the teacher.

Previous Models:

In this part, we will briefly discuss some of the pieces of literature and models that studied the situational leadership styles stages and the relationship with one or more of the project performance dimensions.

Lynch (2015) Model: This model describes how situational leaders evaluate follower competence, commitment, and performance and taking them to developmental levels', varies in the types of leadership and involvement with the follower to developing the performance to be able to handle care-environment and deliver person-center care.

Model (2.1): Lynch (2015) model



Stewart (2015) model: This model highlighted the six criteria (time scale, cost, quality, scope including deliverables' and products', benefits, and risk) for the project status model for the Titanic movie which was cost 200million dollar, and showed which one from these criteria was exceeded or below the estimation, this model showed that there is only one criterion (project scoop) was under estimated while the five other criteria (time, cost, quality, business benefit, stakeholder views, and risk method and team exceed the estimated; this case support the problem statement for this study, for one of the highest budget movie at that time.

Model (2.2): Stewart (2015) model

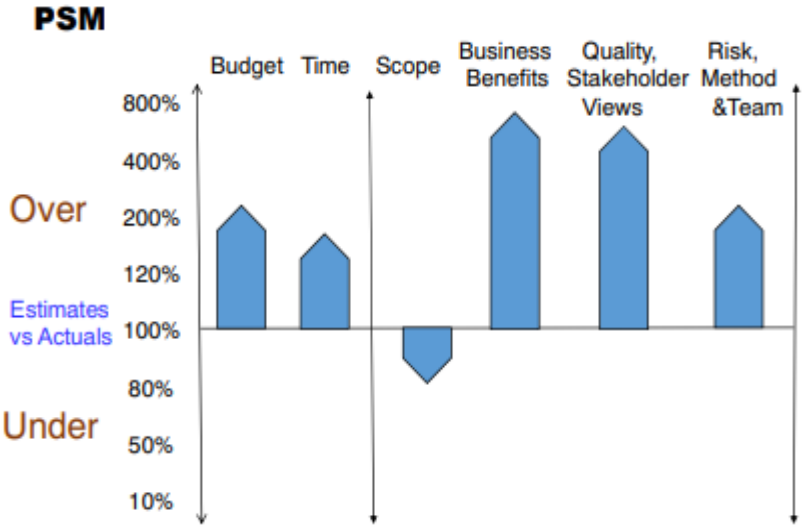
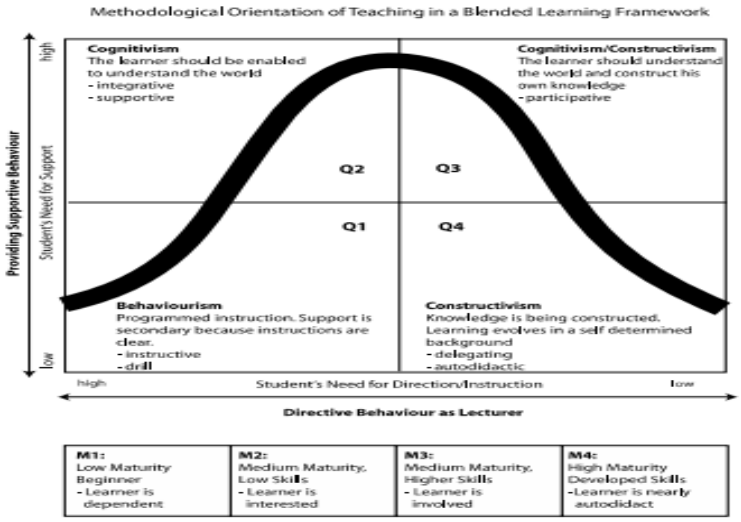


Figure 4: Project Status Model of The Titanic Movie Project

Meier (2016) model:

This model divided the lecturers' task into two parts, quarter 3 and 4 the main role summarized to be moderator rather than instructor, while during Q1 and Q2 require to be high directive behavior by the lecturer, the model also showed that in quarter 3 and 4 the blinded learning will be most effective. The model also kept the maturity level when transferring situational leadership theory into a blended learning model.

Model (2.3): Meier (2016) model



What Differentiate the Current Study from the Previous Study?

This study might be considered as one of few studies which investigate the impact of Situational Leadership Style on Achieving Project performance on Jordanian chemical Manufacturing Organizations. This study is going to be an expansion in the Situational Leadership and Project for both practitioners and researchers. Most of the previous researches works were conducted to manage Project performance from the conceptual perspective and to increase the organizations' Situational Leadership style indicators disclosure. This study is going to specifically explain how the contributions of Situational Leadership style mechanism of action and achieve a distinctive Project performance. Most of the previous studies have been carried out in different countries. The current study was carried out in Jordan. Most of the previous studies were based on reports of different organizations and industries. The current study is based on perception. The results of this study compared with the results of previous studies mentioned earlier to highlight similarities and differences that might be there.

Chapter Three: Study Methodology (Methods and Procedures):

Introduction:

This chapter contains a study design, population, and sampling, data collection methods, study tool, data analysis, normality, validity, and reliability test. In addition to respondents' demographic description.

Study Design:

The current study is considered as a descriptive as well as cause/effect study. It aims at studying the impact of Situational Leadership styles' on Project performance on Jordanian Chemical Manufacturing Organizations. It starts with a literature review and experts' interviews to improve the currently used measurement model and explore the Situational Leadership styles' profile in the Jordanian Chemical Manufacturing Organizations. Then, a panel of judges was conducted to confirm the items, which included in the questionnaire. Finally, the survey is carried out and the collected data checked and coded against SPSS. After testing the tool normality, validity, and reliability, the correlation between variables was tested and multiples regressions were carried out to test the hypotheses.

Study Population, Sample, and Unit of Analysis:

This study covered all Jordanian Chemical Manufacturing Organizations in Amman, Jordan. According to the Amman Chamber of industry, the registered chemical factories are 98. Unit of analysis includes managers who are working in the chemical manufacturing industry and are available at the time of distributing the questionnaires and ready to participate.

Data Collection Methods (Tools):

The data used for fulfilling the purposes of the study can be divided into two sources: secondary and primary data as follows:

Secondary data was collected from the Jordanian Chamber of Industry, journals, books, researches, thesis, dissertations, articles, working papers, and the Worldwide Web.

Primary data collected mainly through questionnaires, which were developed to fulfill the purpose of the current study and based on the previous studies.

Study Instrument (Tool):

The Questionnaire

To actualize this study, the questionnaire (Appendix 3) has been used as the main tool and was developed based on many previous studies. For example (Mallin and Pullins 2006; Chatalalsingh and Reeves 2014; Senot, et. al. 2013; Moody and Galletta 2015; Ateş, et. al. 2017; Ben-Daya, et. al. 2017; Schmidt, et. al. 2017; Zigarmi and Roberts 2017; CHENG, et. al. 2018; Sun, et. al. 2018). It contains two parts, as follows:

The first part contains the demographic dimensions related to gender, age, experience, education, position, division.

The second part includes both independent and dependent variables as follows:

Independent Variable (Situational Leadership Styles): The independent variable includes four sub-variables: directing, coaching, supporting, and delegating. Seven items were used to measure each sub-variable.

Dependent Variable (Project Performance): The dependent variable includes three dimensions: cost, time, and quality. Seven items were used to measure each dimension.

All variables items measured by a five-point Likert-type scale to tap into the managers' perceptions, ranging from value 1 (rarely implemented) to value 5 (high implemented) used throughout the questionnaire.

Data Collection and Analysis:

Data collected from 60 chemical organizations out of 98 chemical organizations registered at Amman chamber of industry during the period from September to December 2020. Out of 133 distributed questionnaires to managers, 121 questionnaires returned. Then, after checking them 85 questionnaires were suitable for further analysis.

Validity test:

A quantitative method used to test the hypotheses and to analyze the collected data. Three methods are used to confirm validity: content, face, and construct. The content validity is confirmed through collecting the data from multiple literature resources such as books, journals, working papers, researches, thesis, dissertations, articles, and worldwide Web and Jordanian Chemical Manufacturing organizations. Moreover, the face validity was confirmed through the board of judges, which judged the questionnaire (see appendix 1). Finally, construct validity is confirmed by Principal Component Factor Analysis with Kaiser Meyer Olkin (KMO).

Construct Validity (Factor Analysis):

Principal Component Factor with Kaiser Meyer Olkin (KMO) used to confirm construct validity. Principal Component Factor Analysis used to confirm data explanatorily. If factor loading is exceeding 0.50 then it is good and accepted (Hair, et. al. 2014). Kaiser Meyer Olkin (KMO) is used to measure

sampling adequacy, harmony, and inter-correlations, KMO values between 0.8 and 1 indicate that high sampling adequacy and value more than 0.6 is accepted. The significance of Bartlett's of Sphericity indicates factor analysis fitness, significance less than 0.05 (at 95% confidence level) indicates the use of factor analysis. Variance percentage shows the explanation power of sub-variables (Cerny &Kaiser, 1977).

Situational leadership:

Table (3.1): Principal Component Analysis Situational Leadership

No.	Item	F1	KMO	Chi²	B.S.T	Var%	Sig.
1	Directing	0.812	0.792	274.358	10	80.071	0.000
2	Coaching	0.935					
3	Supporting	0.939					
4	Delegating	0.888					

Table (3.1) shows the loading factor of each item is more than 0.5. Moreover, KMO rated 79.2% with Chi² 274.358 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 80.071% indicates that it can explain 80.07% of the model.

Directing:

Table (3.2): Principal Component Factor Analysis for Directing

NO.	Item	F1	KMO	Chi ²	B.S.T	Var%	Sig.
1	The project leader assigns the tasks for each team member.	0.687	0.724	129.580	21	57.780	0.000
2	The project leader defines how the task should be done.	0.721					
3	The project leader supervises team members closely.	0.699					
4	The project leader tells when the task should be done.	0.641					
5	The project leader identifies instructions based on the situation.	0.400					
6	The project leader guides all-important decisions.	0.651					
7	The project leader creates a common language within the team.	0.583					

Table (3.2) shows the directing loading factor for each item is more than 0.5, except item no. 5 has rated 0.4, which is accepted, which means that the items are matching with each other. Moreover, KMO rated 72.4% with Chi² 129.580 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05 (at confidence 0.95), which indicates the usefulness of Factor analysis. Finally, the variance percentage is 57.780% indicates that it can explain 57.78% of directing.

Coaching:

Table (3.3) shows the loading factor of each item is more than 0.5. Moreover, KMO rated 68.3% with Chi² 147.597 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 57.165% indicates that it can explain 57.17% of the model.

Table (3.3): Principal Component Factor Analysis for Coaching

No.	Item	F1	KMO	Chi²	B.S.T	Var%	Sig.
1	The project leader follows up with team members to achieve the company objectives.	0.762	0.683	147.597	21	57.165	0.000
2	The project leader leads team members closely.	0.620					
3	The project leader discusses with the team members their suggestions.	0.552					
4	The project leader engages the awareness in mission achievement with team members	0.609					
5	The project leader monitors the task accomplishment for each team member	0.665					
6	The project leader involves the team members in decision making.	0.474					
7	The project leader distributes tasks according to individual team member ability.	0.735					

Supporting:

Table (3.4) shows the loading factor of each item is more than 0.5, except item no. 3 has rated 0.462, which is accepted. Moreover, KMO rated 83.4% with Chi² 183.996 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the

usefulness of FCA. Finally, the variance percentage is 48.924% indicates that it can explain 48.92% of the model.

Table (3.4): Principal Component Analysis Supporting

NO	Item	F1	KMO	Chi ²	B.S.T	Var%	Sig.
1	The project leader encourages team member involvement.	0.734	0.834	183.996	21	48.924	0.000
2	The project leader provides appropriate resources.	0.591					
3	The project leader concerns about socio-emotional aspects.	0.462					
4	Supporting 4 The project leader pushes team members to contributes to decision-making.	0.743					
5	The project leader supports team members to overcome obstacles.	0.752					
6	The project leader facilitates team members to use the resource efficiently.	0.798					
7	The project leader appreciates team members' activities.	0.754					

Delegating:

Table (3.5) shows the loading factor of each item is more than 0.5. Moreover, KMO rated 83.0% with Chi² 267.385 indicates good data adequacy and fitness of the model.

Table (3.5): Principal Component Analysis Delegating

NO	Item	F1	KMO	Chi²	B.S.T	Var%	Sig.
1	The project leader authorizes team members in delivering customer satisfaction.	0.678	0.830	267.385	21	56.646	0.00
2	The project leader allows the team members to deal with problems directly.	0.734					
3	The project leader empowers team members to respond to problems.	0.787					
4	The project leader gives team members the authority for using alternatives.	0.825					
5	The project leaders' team members' decision making.	0.842					
6	The project leader mandatories the team members on behalf of himself for the required support.	0.769					
7	The project leader appreciates team members' positive results.	0.606					

While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 56.646% indicates that it can explain 56.65% of the model.

Project Performance:

Table (3.6) shows the loading factor of each item is more than 0.5. Moreover, KMO rated 72.3% with Chi² 126.643 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 79.335% indicates that it can explain 79.34% of the model.

Table (3.6): Principal Component Analysis Project Performance

No.	Item	F1	KMO	Chi ²	B.S.T	Var%	Sig.
1	Cost	0.905	0.723	126.643	10	79.335	0.000
2	Time	0.911					
3	Quality	0.855					

Cost:

Table (3.7): Principle Component Analysis Cost

NO.	Item	F1	KMO	Chi ²	B.S.T	Var%	Sig.
1	The project team develops a partnership with suppliers.	0.702	0.812	251.805	21	68.676	0.000
2	The project team reduces delivery costs.	0.719					
3	The project team minimizes process cycle costs.	0.743					
4	The project team uses appropriate resources.	0.793					
5	The project team adheres to the approved budget.	0.781					
6	The project team qualifies on multi-task functions.	0.638					
7	The project team eliminates the waste.	0.772					

Table (3.7) shows the loading factor of each item is more than 0.5. Moreover, KMO rated 81.2% with Chi² 251.805 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 68.676% indicates that it can explain 68.68% of the model.

Time:

Table (3.8) shows the loading factor of each item is more than 0.5. Moreover, KMO rated 81.6% with Chi² 282.665 indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 56.383% indicates that it can explain 56.38% of the model.

Table (3.8): Principal Component Analysis Time

No.	Item	F1	KMO	Chi ²	B.S.T	Var%	Sig.
1	The project team submits the project on time.	0.631	0.816	282.665	21	56.383	0.000
2	The project team minimizes the setup time.	0.789					
3	The project team reduces the operations cycle time.	0.844					
4	The project team accelerates the delivery time.	0.839					
5	The project team uses digital communications.	0.553					
6	The project team applies time management.	0.783					
7	The project team applies Just in Time inventory	0.769					

Quality:

Table (3.9): Principal Component Analysis Quality

No.	Item	F1	KMO	Chi ²	B.S.T	Var%	Sig.
1	The project team deals with approved quality suppliers.	0.690	0.798	184.074	21	62.249	0.000
2	The project team follows customer values.	0.747					
3	The project team involves an external quality audit.	0.494					
4	The project team follows industry standards.	0.753					
5	The project team implements (Quality Assurance and Quality Control) inspections.	0.828					
6	The project team uses SOPs (Standard Operating procedures).	0.747					
7	The project team follows government regulations.	0.512					

Table (3.9) shows the loading factor of each item is more than 0.5, except item no. 3 has rated 0.494, which is accepted. Moreover, KMO rated 79.8% with Chi² 184.074indicates good data adequacy and fitness of the model. While, the significance of Bartlett's Sphericity is less than 0.05, which indicates the usefulness of FCA. Finally, the variance percentage is 62.249% indicates that it can explain 62.25% of the model.

Reliability test:

The date reliability tested by Cronbach's alpha, the Cronbach's alpha coefficient above 0.70 is good, and more than 0.6 is accepted (Hair, et. al. 2014). Table (3.10) shows that the reliability coefficient for Situational Leadership sub-variables ranges between 0.739 and 0.871 and for Project Performance dimensions are between 0.804 and 0.864, which indicates the reliability of the tool.

Table (3.10): Reliability Test for all variables

Variable	Items/ Sub-Variable	Cronbach's alpha
Directing	7	0.739
Coaching	7	0.751
Supporting	7	0.814
Delegating	7	0.871
Situational Leadership	**4 Sub-Variable**	0.912
Cost	7	0.857
Time	7	0.864
Quality	7	0.804
Project Performance	**3 Dimensions**	0.869

Normal Distribution Test:

Table (3.11): Normal Distribution Test for all variables

Variable	KS (z)	Sig.
Directing	0.911	0.377
Coaching	1.210	0.107
Supporting	1.314	0.063
Delegating	1.218	0.103
Situational Leadership	1.279	0.076
Cost	1.092	0.184
Time	1.455	0.029
Quality	1.329	0.058
Project Performance	1.373	0.046

Table (3.11) shows Kolmogorov-Smirnov Z has been used to test the normality of data. If the significance of variable or sub-variable significance is less than 0.5, then data is normally distributed.

Demographic Analysis:

The demographic analysis showed below describes the valid respondents' characteristics i.e. percentage and frequency of participants such as gender, age, experience, education, position, and division.

Gender:

Table (3.12) shows the majority of respondents are males, were 56 (65.9%), and only 29 (34.1%) are females. The decrease in the female percentage is due to its increase in other departments outside the sample such as Human Resource and Research and Development Department.

Table (3.12): Respondents Gender

		Frequency	Percent
Gender	Male	56	65.9
	Female	29	34.1
	Total	**85**	**100**

Age:

Table (3.13) shown that the majority of respondents ages are between (30-39) years (42.4.7%), with 36 respondents which are matching with study scoop with the target managerial level followed by respondents between (40-49) years (24.7%), with 23 respondents followed by respondents less than (30) years (24.7.3%), with 21 respondents, finally respondents above (50) years (5.8%) with 5 respondents.

Table (3.13): Respondents Age

		Frequency	Percent
Age	Less than 30	21	24.7
	Bet. 30-39	36	42.4
	Bet. 40-49	23	27.1
	Above 50	5	5.8
		85	**100**

Experience:

Table (3.14) shows the most respondents have less than 10 years' experience (40.0%) with 34 respondents, followed by (38.8%) respondents between 10-19 years' experience with 33 respondents, followed by (17.6%) respondents between 20-29 years' experience with 15 respondents, and finally above 30 years' experience only 3 (3.5%). The majority of respondents match with the target managerial level for this study.

Table (3.14): Respondents Experience

		Frequency	Percent
experience	Less than 10	34	40.0
	Bet. 10-19	33	38.8
	Bet 20-29	15	17.6
	Above 30	3	3.5
	Total	**85**	**100**

Education:

Table (3.15): Respondents Education

		Frequency	Percent
Education	Diploma	4	4.7
	Bachelor	52	61.2
	Master	27	31.8
	PH.D	2	2.4
	Total	**85**	**100**

Table (3.15) shows the most respondents are Bachelor holders 52 (61.2%), followed by Master holders 27 (31.8%), then Diploma holders 4 (4.7%), finally Ph.D. holders only 2 (2.4%).

Position: Table (3.16) shows the most respondents are Manager 34(40.0%), followed by Supervisor 23(27.1%), followed by Officer 21(24.7%), followed by director 4 (4.7%), then General Manager 2 (2.4%), finally vice president only 1 (1.2%).

Table (3.16): Respondents Position

		Frequently	Percent
Position	Officer	21	24.7
	Supervisor	23	27.1
	Manager	34	40.0
	Director	4	4.7
	Vice President	1	1.2
	General Manager	2	2.4
	Total	**85**	**100**

Division:

Table (3.17) shows the majority of respondents are from the Sales and Marketing department 39 (45.9%), followed by from operation and quality department 30 (35.3%), then from finance 9 (10.6%), finally from supply chain department 7(8.2%). Sales and Marketing represent the highest among others because this function is the main division that the company relies on.

Table (3.17): Respondents Division

		Frequency	Percent
Division	Operations & Quality	30	35.3
	Supply Chain	7	8.2
	Marketing & Sales	39	45.9
	Finance	9	10.6
	Total	**85**	**100**

Chapter Four: Data Analysis

Introduction:

This chapter includes data descriptive statistical analysis of respondents' perception, Person Bivariate Correlation matrix to test the relationship among Situational Leadership sub-variables with each other, Project Performance dimensions with each other, and between Situational Leadership variable and sub-variables with Project Performance dimensions. Finally, it includes hypothesis testing, which tests the impact of total Situational Leadership on Project Performance.

Descriptive Statistical Analysis:

The mean, standard deviation, t-value, ranking, and implementation level are used to describe the respondents' perception and the degree of implementation of each variable, dimension, and items. The implementation level is divided into three categories based on the following formula:

(5-1)/3=1.33

Therefore, the implementation to be considered high if it is within the range of 3.67-5.00 and medium if it is between 2.34, and 3.66 and low implementation is between 1.00, and 2.33.

Independent Variable (Situational Leadership)

Table (4:1): Mean, Standard Deviation, t-value, Ranking and Implementation level of Situational Leadership

Item	M.	S.D.	t	Sig.	Rank	Imp.
Directing	3.94	0.57	15.159	0.00	1	High
Coaching	3.83	0.58	13.091	0.00	2	High
Supporting	3.78	0.64	11.196	0.00	3	High
Delegating.	3.75	0.74	9.923	0.00	4	High
Situational Leadership	**3.82**	**0.57**	**13.386**	**0.00**		**High**

T-tabulate value=2.00

Table (4.1) shows that the means of Situational Leadership sub-variables range from 3.75 to 3.94, with standard deviation ranges from 0.57 to 0.74. This indicates that the respondents agree that the Chemical organizations' have a high implementation of Situational Leadership sub-variables. Result also shows that the average mean of Situational Leadership is 3.82 with a standard deviation of 0.57, which means that the chemical organizations are highly implementing Situational Leadership, where the average of t-value 13.386 is more than T-tabulated=2.00. The table also shows that directing has the highest implementation, followed by coaching, then supporting, and delegating, respectively.

Directing: table (4.2) shows that the means of directing items range from 3.64 to 4.19 with a standard deviation between 0.75 and 1.00. This indicates the respondents have medium to a high agreement on the high importance of most directing items. Results also show that the average mean of directing is 3.94 with a standard deviation of 0.57, which means that respondents agree on the high implementation of directing, where the average of t-value 15.159 is more than T-tabulated=2.00

Table (4.2): Mean, Standard Deviation, t-value, Ranking and Implementation level of Directing

Item	M.	S.D.	t	Sig.	Rank	Imp.
The project leader assigns the tasks for each team member.	4.13	0.80	13.038	.000	2	High
The project leader defines how the task should be done.	3.85	0.93	8.377	.000	5	High
The project leader supervises team members closely.	4.04	0.93	10.246	.000	3	High
The project leader tells when the task should be done.	4.19	0.75	14.647	.000	1	High
The project leader identifies instructions based on the situation.	3.82	0.98	7.622	.000	6	Medium
The project leader guides all-important decisions.	3.94	1.00	8.641	.000	4	High
The project leader creates a common language within the team.	3.64	0.99	5.939	.000	7	Medium
Directing	**3.94**	**0.57**	**15.159**	**.000**		**High**

T-tabulate value=2.00

Coaching:

Table (4.3) shows that the means of coaching items range from 3.62 to 4.07 with a standard deviation between 0.83 and 1.01. This indicates the respondents have medium to high agree on the high importance of most Coaching items. Results also show that the average mean of coaching is 3.83 with a standard deviation of 0.58, which means that agree on the high implementation of coaching, where the average of t-value 13.091 is more than T-tabulated=2.00.

Table (4.3): Mean, Standard Deviation, t-value, Ranking and Implementation level of Coaching

Item	M.	S.D.	t	Sig.	Rank	Imp.
The project leader follows up with team members to achieve the company objectives.	4.05	0.92	10.441	.000	1	High
The project leader leads team members closely.	3.89	1.01	8.145	.000	4	High
The project leader discusses with the team members their suggestions.	3.65	0.83	7.216	.000	5	Medium
The project leader engages the awareness in mission achievement with team members	3.64	0.97	6.013	.000	7	Medium
The project leader monitors the task accomplishment for each team member	4.07	0.95	10.406	.000	2	High
The project leader involves the team members in decision making	3.62	0.89	6.488	.000	6	Medium
The project leader distributes tasks according to individual team member ability.	3.88	0.86	9.407	.000	3	High
Coaching	**3.83**	**0.58**	**13.091**	**.000**		**High**

T-tabulate value=2.00

Supporting:

Table (4.4) shows that the means of supporting items range from 3.46 to 3.95 with a standard deviation between 0.86 and 1.00. This indicates the respondents have medium to high agree on the high importance of most Supporting items. Results also show that the average mean of supporting is 3.78 with a standard deviation of 0.64, which means that the respondents agree on the high implementation of supporting, where the average of t-value 11.196 is more than T-tabulated=2.00.

Table (4.4): Mean, Standard Deviation, t-value, Ranking and Implementation level of Supporting

Item	M.	S.D.	t	Sig.	Rank	Imp.
The project leader encourages team member involvement.	3.84	0.86	8.986	.000	3	High
The project leader provides appropriate resources.	3.73	0.96	7.034	.000	5	Medium
The project leader concerns about socio-emotional aspects.	3.46	1.00	4.203	.000	7	Medium
The project leader pushes team members to contribute to decision making.	3.59	0.93	5.834	.000	6	Medium
The project leader supports team members to overcome obstacles.	3.93	0.97	8.804	.000	4	High
The project leader facilitates team members to use the resource efficiently.	3.94	0.86	10.043	.000	1	High
The project leader appreciates team members' activities.	3.95	0.91	9.637	.000	2	High
Supporting	**3.78**	**0.64**	**11.196**	**.000**		**High**

T-tabulate value=2.00

Delegating:

Table (4.5): Mean, Standard Deviation, t-value, Ranking and Implementation level of Delegation

Item	M.	S.D.	t	Sig.	Rank	Imp.
The project leader authorizes team members in delivering customer satisfaction.	3.88	0.92	8.859	.000	2	High
The project leader allows the team members to deal with problems directly.	3.76	0.93	7.548	.000	3	Medium
The project leader empowers team members to respond to problems.	3.65	1.11	5.377	.000	6	Medium
The project leader gives team members the authority for using alternatives.	3.74	0.93	7.365	.000	4	Medium
The project leader empowers team members' decision making.	3.64	1.11	5.272	.000	7	Medium
The project leader mandatories the team members on behalf of himself for the required support.	3.64	1.00	5.868	.000	5	Medium
The project leader appreciates team members' positive results.	3.96	0.92	9.681	.000	1	High
Delegation	**3.75**	**0.74**	**9.329**	**.000**		**High**

T-tabulate value=2.00

Table (4.5) shows that the means of delegating items range from 3.64 to 3.96 with a standard deviation between 0.92 and 1.11. This indicates the respondents have medium to high agree on the high importance of most Delegating items. Results also show that the average mean of delegating is 3.78 with a standard deviation of 0.64, which means that the respondents agree on the

high implementation of delegating, where the average of t-value 9.329 is more than T-tabulated=2.00.

Dependent Variable (Project Performance):

Table (4-6) shows the mean of Project Performance dimensions range between 3.89 and 4.02 with a standard deviation between 0.68 and 0.96. This explains that respondents agree on the high importance of Project Performance dimensions. The average mean is 3.94, with a standard deviation of 0.59, which shows the respondents agree on the high importance of Project Performance dimensions, where the average of t-value=14.685 is more than T-tabulated=2.00. Table (4.6) shows the quality has rated highest importance, followed cost, then time, respectively.

Table (4.6): Mean, Standard Deviation, t-value, Ranking and Implementation level of Project Performance

Item	M.	S.D.	T	Sig.	Rank	Imp.
Cost	3.89	0.68	11.984	.000	2	High
Time	3.90	0.96	11.965	.000	3	High
Quality	4.02	0.60	15.665	.000	1	High
Project Performance	**3.94**	**0.59**	**14.685**	**.000**		**High**

T-tabulate value=2.00

Cost:

Table (4.7): Mean, Standard Deviation, t-value, Ranking and Implementation level of Cost

Item	M.	S.D.	t	Sig.	Rank	Imp.
The project team develops a partnership with suppliers.	3.68	1.01	6.202	.000	7	Medium
The project team reduces delivery costs.	3.85	0.82	9.479	.000	3	High
The project team minimizes process cycle costs.	3.87	0.83	9.695	.000	2	High
The project team uses appropriate resources.	3.97	1.02	8.745	.000	4	High
The project team adheres to the approved budget.	4.19	0.85	12.857	.000	1	High
The project team qualifies on multi-task functions.	3.85	0.90	8.616	.000	5	High
The project team eliminates the waste.	3.81	1.04	7.191	.000	6	Medium
Cost	**3.89**	**0.68**	**11.984**	**.000**		**High**

T-tabulate value=2.00

Table (4.7) shows that the means of cost items range from 3.68 to 4.19 with a standard deviation between 0.82 and 1.04. This indicates the respondents

have medium to high agree on the high importance of most Cost items. Results also show that the average mean of cost is 3.89 with a standard deviation of 0.68, which means that the respondents agree on the high implementation of cost items, where the average of t-value 11.984 is more than T-tabulated=2.00.

Time:

Table (4.8) shows that the means of time items range from 3.69 to 4.05 with a standard deviation between 0.83 and 1.08. This indicates the respondents have medium to high agree on the high importance of most Time items. Results also show that the average mean of time is 3.90 with a standard deviation of 0.96, which means that the respondents agree on the high implementation of time items, where the average of t-value 11.965 is more than T-tabulated=2.00.

Table (4.8): Mean, Standard Deviation, t-value, Ranking and Implementation level of Time

Item	M.	S.D.	t	Sig.	Rank	Imp.
The project team submits the project on time.	4.00	0.94	9.823	.000	3	High
The project team minimizes the setup time.	3.72	0.87	7.626	.000	6	Medium
The project team reduces the operations cycle time.	3.92	0.83	10.145	.000	2	High
The project team accelerates the delivery time.	4.05	0.92	10.441	.000	1	High
The project team uses digital communications.	3.96	0.91	9.821	.000	4	High
The project team applies time management.	3.95	0.96	9.128	.000	5	High
The project team decreases the inspection time.	3.69	1.08	5.923	.000	7	Medium
Time	**3.90**	**0.96**	**11.965**	**.000**		**High**

T-tabulate value=2.00

Quality:

Table (4.9) shows that the means of Quality items range from 3.60 to 4.22 with a standard deviation between 0.83 and 1.00. This indicates the respondents have medium to high agree on the high importance of most Quality items. Results also show that the average mean of Quality is 4.02 with a standard deviation of 0.60, which means that the respondents agree on the high implementation of Quality items, where the average of t-value 15.665 is more than T-tabulated=2.00.

Table (4.9): Mean, Standard Deviation, t-value, Ranking and Implementation level of Quality

Item	M.	S.D.	T	Sig.	Rank	Imp.
The project team deals with approved quality suppliers.	3.98	0.86	10.483	.000	5	
The project team follows customer values.	4.00	0.93	9.958	.000	6	
The project team involves an external quality audit.	3.60	1.00	5.519	.000	7	
The project team follows industry standards.	4.14	0.86	12.216	.000	3	
The project team implements (Quality Assurance and Quality Control) inspections.	4.21	0.83	13.423	.000	1	
The project team uses SOPs (Standard Operating procedures).	4.01	0.84	11.131	.000	4	
The project team follows government regulations.	4.22	0.89	12.654	.000	2	
Quality	**4.02**	**0.60**	**15.665**	**.000**		

T-tabulate value=2.00

The Relationship between Independent and Dependent Variable:

Table (4.10): Bivariate Pearson Correlation between all Variables, Sub-Variables, and Dimension.

No		1	2	3	4	5	6	7	8	9
1	Directing									
2	Coaching	.740**								
		.000								
3	Support	.645**	.839**							
		.000	.000							
4	Delegating	.553**	.755**	.855**						
		.000	.000	.000						
5	Situational Leadership	.805**	.926**	.939**	.901**					
		.000	.000	.000	.000					
6	Cost	.588**	.715**	.736**	.654**	.753**				
		.000	.000	.000	.000	.000				
7	Time	.677**	.751**	.790**	.724**	.822**	.768**			
		.000	.000	.000	.000	.000	.000			
8	Quality	.650**	.749**	.747**	.629**	.772**	.643**	.657**		
		.000	.000	.000	.000	.000	.000	.000		
9	Project Performance	.715**	.827**	.850**	.752**	.878**	.908**	.914**	.848**	
		.000	.000	.000	.000	.000	.000	.000	.000	

***. Correlation is significant at the 0.05 level (2-tailed), **. Correlation is significant at the 0.01 level (2-tailed).**

Bivariate Pearson Principal correlation method used to test the relationships between variables and sub-variables. Table (4-10) shows that the relationships between Situational Leadership sub-variables are strong, where r

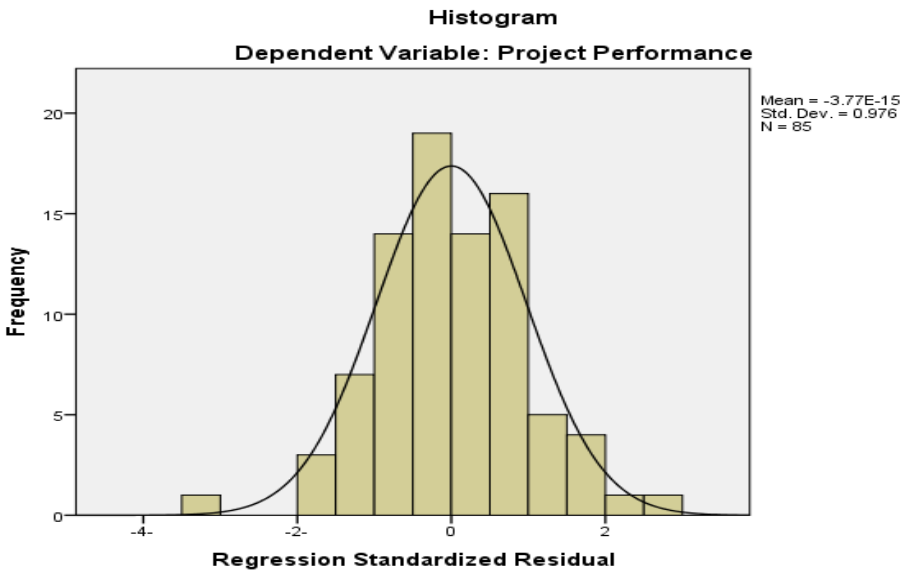
ranges from 0.553 and 0.855. Moreover, the relationships between Project Performance elements are medium to strong, where r ranges between 0.643 and 0.768. Finally, the relationship between Situational leadership and Project Performance is very strong, where r equals 0.878.

Hypotheses Testing:

After checking validity, reliability, and the correlation between Situational leadership sub-variables and Project performance dimensions, multiple regression was used to test study hypotheses, also normality, Linearity test, and independence of errors, multicollinearity (Sekaran, 2016).

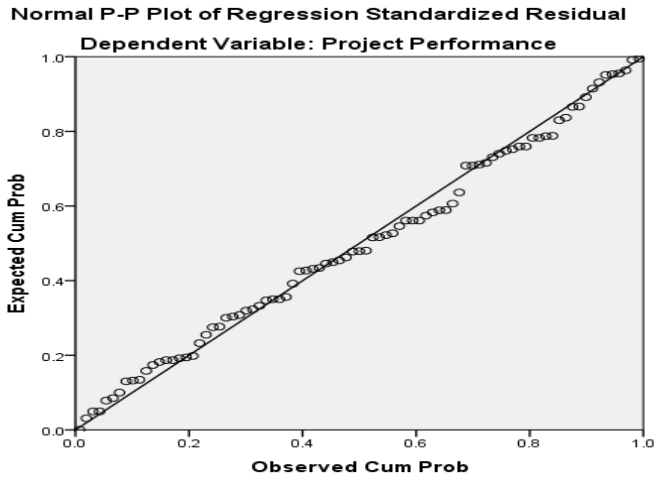
Normality:

Figure (4.1) shows that the histogram shape of data follows the normal distribution, this indicates that the residuals do not affect normal distribution.



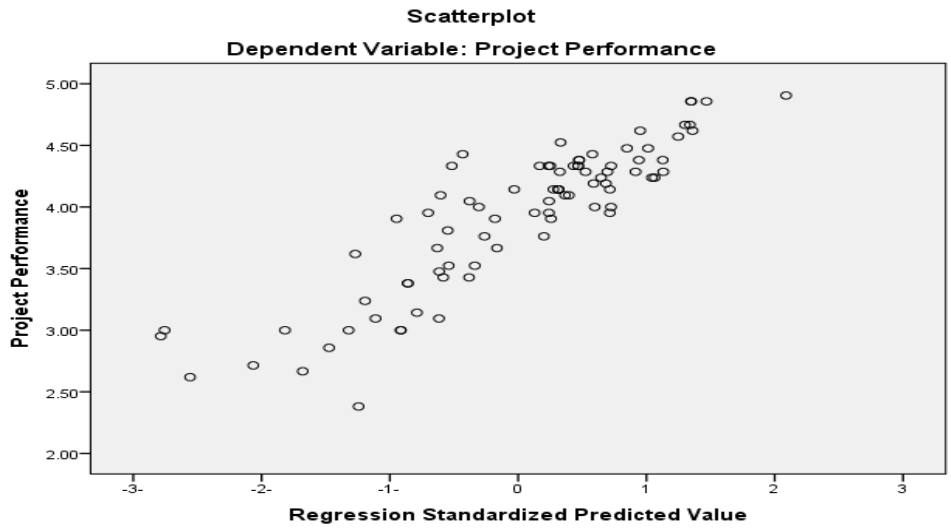
Linearity Test:

Figure (4.2) shows that the relationship between independent and dependent variables is linear.



Independence of Errors:

Figure (4.3) shows the scatter plot of errors around the mean; also, Durbin-Watson used to ensure the independence of errors.



Multi-Collinearity:

Table (4.11): Durbin-Watson Value and Variance Inflation Rate:

Sub-Variable	Collinearity Statistics		Durbin-Watson
	Tolerance	VIF	
Directing	0.448	2.233	**1.754**
Coaching	0.223	4.482	
Supporting	0.180	5.558	
Delegating	0.263	3.809	

Table (4.11) shows the VIF (Variance Inflation Factor) value is less than 10, also the tolerance is more than 10%, therefore the Collinearity model does not violate this assumption. Durbin-Watson is 1.75 and it is around two.

Main Hypothesis:

H_{01}: Situational leadership styles (directing, coaching, supporting, and delegating) do not affect project performance at Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$).

Table (4.12) shows that when regressing the four sub-variables of Situational leadership stages against Project performance, the f-value shows the fitness of the study model, and R^2 shows the explanatory power of the independent variable on the dependent variable. The model shows that Situational Leadership can explain 78.6% of the variation of Project Performance, where (R^2=0.786, F=73.368, Sig.=0.000). Therefore, the null hypothesis was rejected, and the alternative hypothesis is accepted, which states that Situational Leadership practices sub-variables (directing, coaching, supporting, and delegating) impact project performance at chemical manufacturing, at a level of significance ($\alpha \leq 0.05$).

Table (4.12): Multiple Regression Analysis of Situational Leadership Styles Sub-Variables against Project Performance

Model	r	R^2	Adjusted R^2	F	Sig.
1	0.886[a]	0.786	0.775	73.368	0.000[b]

a. Predictors: (Constant), Directing, Coaching, Supporting, and Delegating, b. Dependent Variable: Project Performance.

Table (4.13): Multiple Regressions Analysis of Situational Leadership Sub-Variables on Project Performance (ANOVA).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.388	0.223		1.745	0.085
	Directing	0.210	0.079	0.204	2.643	0.010
	Coaching	0.241	0.110	0.239	2.179	0.032
	Supporting	0.431	0.112	0.469	3.841	0.000
	Delegating	0.046	0.080	0.058	0.576	0.566

a. dependent variable: Project Performance, T-tabulated=2.00

Based on the components of Situational Leadership, table (4.13) shows the effect of each sub-variable on Project Performance.

$H_{01.1}$: Directing style does not affect project Performance at Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$). Table (4.13) shows that there is an impact of Situational Leadership (Directing) on Project performance, where (Beta=0.204, t=2.643, Sig.=0.010, $p<0.05$). Therefore, the null hypothesis is rejected, and the alternative hypothesis states that Directing impact Project Performance of Jordanian Chemical Manufacturing Organizations, at a level of significance ($\alpha \leq 0.05$).

$H_{01.2}$: Coaching style does not affect project Performance at Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$). Table (4.13) shows that there is an impact of Situational Leadership (Coaching) on Project performance, where (Beta=0.239, t=2.179, Sig.=0.032, $p<0.05$). Therefore, the null hypothesis was rejected, and the new hypothesis states that Coaching impact Project Performance at Jordanian Chemical Manufacturing Organizations, at a level of significance ($\alpha \leq 0.05$).

$H_{01.3}$: Supporting style does not affect project Performance at Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$). Table (4.13) shows that there is an impact of Situational Leadership (Supporting) on Project performance, where (Beta=0.469, t=3.841, Sig.=0.000, $p<0.05$). Therefore, the null hypothesis was rejected, and the new hypothesis states that Coaching impact Project Performance at Jordanian Chemical Manufacturing Organizations, at a level of significance ($\alpha \leq 0.05$).

$H_{01.4}$: Delegating style does not affect project Performance at Jordanian Chemical Manufacturing Organizations, at ($\alpha \leq 0.05$). Table (4.13) shows that there is an impact of Situational Leadership (Supporting) on Project performance, where (Beta=0.058, t=0.576, Sig.=0.566, $p<0.05$). Therefore, the null hypothesis accepted

In summary, results show that respondents agree on the high importance of Situational Leadership sub-variables except Delegating, Supporting rated high importance, followed by Coaching, then Directing, finally the respondents' results show that Delegating does not affect Project Performance.

Results also show that the relationships between Situational leadership sub-variables are medium to strong, and the relationships between Project performance dimensions are very strong, finally, the result shows that the relationships between Situational Leadership sub-variables and Project Performance are strong, and the relationship between Situational Leadership and Project Performance is strong.

Finally, the results of multiple regression analysis showed that the Situational Leadership and its sub-variables affect Project Performance, were supporting the highest impact, followed by Coaching, then Directing, and delegating, respectively.

Chapter Five: Results' Discussion, Conclusion, and Recommendations

Results' discussion:

The results show that respondents agree on the high importance of Situational Leadership Styles sub-variables, where the supporting has rated the highest importance, followed by Directing, then Coaching, ending by Delegating, respectively. This indicates that the managers working at Jordanian chemical manufacturing organizations believe in the importance of the implantation of the Situational Leadership styles; this result is supported by the following studies that mentioned the importance of Situational Leadership styles and their sub-variables**.** Thompson and Glasø (2015) study results showed that the Situational Leadership theory predictions will be better when the leader and follower assessments matched. Meier (2016) study results showed the effect of situational leadership theory on blended learning as the teacher uses the teaching style based on the learners' maturity level. Raza and Sikandar (2018) study results showed how the situational teacher technique (telling, selling, participating, and delegating affects students' scores. These previous studies' results are in line with the results that this study comes with.

The results also showed that the respondents agree on the high importance of project performance dimensions, where selecting quality, coat ended with time, respectively. This indicates that the managers who are working at Jordanian chemical manufacturing organizations believe in the importance of the implantation of the project performance dimensions, the result supported by the following studies that mentioned the importance of project performance. Ebbesen and Hope (2013) study resulted that the targeted samples for this study believe in the relation between the cost, time, and quality amongst projects managers and the interest in these measurements', but it needs some

modifications to adapt with challenges'. Pollack, et. al. (2018) results showed the coat, time and quality is more important the alternatives like scoop and requirements'. These previous studies' results are in line with the results that this study comes with.

Results also show that the relationships among Situational Leadership Styles stages are medium to strong, and the relationship among Project performance dimensions are strong, finally, the result showed the relationships between Situational Leadership Styles stages and Project Performance are strong, and the relationship between Situational Leadership Styles and Project Performance is strong. These results supported by Ghazzawi, et. al. (2017) stated that situational leadership affects positively relationships on employees' performance. Gondo, et. al (2017) said that situational leadership style, work motivation, and work ethic have a significant impact on employee performance which influences the company performance. Henkel and Bourdeau (2018) said that two situational leadership styles (directing and supporting) appearing during the self-assessment by military managers, and showed that this assessment helps managers to have a better understanding of situational leadership styles. These previous studies' results are in line with the results that this study comes with.

Finally, the results of multiple regression analysis showed that the Situational Leadership styles stages affect Project Performance, where supporting has the highest impact, followed by coaching, then directing, ended with delegating, respectively. Pasaribu (2015) said that there is a significant relationship between situational leadership behavior, organization culture, and human resource strategies implementation with effect, positively on the performance. Setyorini, et. al. (2018) said that situational leadership has a positive effect on employee performance through job satisfaction. These previous studies' results are in line with the results that this study comes with.

Conclusion:

This study was devoted to answering the study main question: Do situational leadership styles (directing, coaching, supporting, and delegating) affect project performance on Jordanian manufacturing organizations? The questionnaire was used to collect the data, which tested for validity, reliability, and normality. Then the correlation and multiple regressions' used to test the hypothesis.

Results showed the high implementation of situational leadership styles in Jordanian chemical manufacturing organizations. Supporting has the highest implementation, then coaching, followed by directing and delegating, respectively. Moreover, the finding showed the high implementation of project performance dimensions, Time in the highest implemented dimension, followed by cost, then quality.

Results also showed that the relationship between Situational Leadership Styles is medium to strong, also the result showed that the relationship between Situational Leadership Styles stages and project performance is strong.

Finally, results indicate that there is a significant impact of the Situational Leadership Styles on Projects performance, where the supporting has the highest impact followed by coaching, directing, and delegating

Recommendations:

Recommendations for Jordanian chemical manufacturing organizations:

The study recommends that Jordanian chemical manufacturing organization to have:

1. Emphasize the importance and effects of situational leadership styles on project performance improvement.

2. Work to develop the implementation of delegation style and empowering employees.

3. Engaging and empowerment of team members to create self-control over compliance with the controls for optimal performance of the project.

4. Provide cross-training to all managers' to ensure the importance of situational leadership styles.

Recommendations for Academics and Future Research:

This study was conducted on a Jordanian chemical manufacturing organization. To be able to generalize the current study results, it is recommended to conduct similar studies on the same industry in other countries.

This study is carried out on one industry (chemical industry); therefore, it is advised to apply the same variables to other manufacturing industries.

This study is carried out within a limited period and during the Corona pandemic which caused limited access to respondents; therefore, it is advised to repeat this study after a suitable time to check industry development.

Extending the analyses to other industries and countries represent future research opportunities, which can be done on larger samples and different industries, this will help to mitigate the issue of generalizing conclusions on other organizations and industries**.**

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Appendices:

Appendix (1): Panel of Referees Committee.

NO.	Name	Qualification	Organization
1	Prof. Ahmed Ali Saleh	Management	Middle East University
2	Dr. Sameer Al-Jabali	Marketing	Middle East University
3	Dr. Nawaf Al-Jondi	Accounting	Middle East University
4	Dr. Ayman Al-Khazaleleh	Finance	Middle East University
5	Dr. Abdullah Al-Bataineh	**Marketing**	Middle East University
6	Prof. Mahmoud Shehadeh	Management	Germen Jordanian University
7	Prof. Mohammad Abu Zaid	Prof. Management	Zarqa university
8	Prof. Laith Al-Qhaiwi	Business Administration	Zarqa university
9	Eng. Hazem Abu- Alhaj	Deputy general manager	MS group
10	Eng. Rana Sabti	Planet Manager	MS group

Appendix 2: Referees comittee Letter

جـــامـعـــة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

Dear Doctor/Professor……..

May I request you to referee the attached a questionnaire, which will be used for a research paper titled: "The Impact of Situational Leadership Style on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations".

The questionnaire includes 49 questions, which may take 15 to 20 minutes to referee it. I am eager to learn from your comments, which will contribute in developing suitable questions to measure the variables. Your contribution is highly appreciated.

Please write your comments, suggestions and recommendations opposite to each questionnaire. I am sure your contribution will add value to my thesis.

Again, thank you for your contribution, and if do you have any questions or concerns please contact me on (0777777806)

Thank you for your fruitful contribution.

Please find attached a copy of research hypothesis and model.

Student: Emad Al.Moghrabi

Appendix 3: Letter and Questionnaire of Respondents

جـــامـعـــة الـــشـرق الأوسـط
MIDDLE EAST UNIVERSITY
Amman - Jordan

Thesis Questionnaire

Dear Mr. ……

Greeting,

I would like to request you to answer the attached questionnaire related to my thesis titled: **"The Impact of Situational Leadership Styles on Projects Performance: A Field Study on Jordanian Chemical Manufacturing Organizations"**.

This questionnaire includes 49 paragraphs which, cover both independent and dependent variables, and may take only 15 minutes. The responses will be used for research purposes and will confidential and you do not need to write your name.

I requested you to indicate what is actually implemented in your company not what you wish to be implemented.

Finally, I appreciate and thank you for your participation and support, and if do you have any question or comment, please call me (0777777806).

Thank you for your effort.

Prepared by: Emad Almoghrabi

Supervised by: Dr. Abdel-Aziz Ahmad Sharabati

Part one: Demographic information

Company (optional):

Gender: □Male □Female

Age (years): □Less than 30 □ Bet. 30-39 □Bet. 40-50 □Above 50

Experience (years): □Less 10 □Bet.10-20 □Bet.21-30 □More than 30

Education: □Diploma □ Bachelor □Master □Ph.D.

Position: □ Officer □ Supervisor □Manager □Director □V. P □G.M

Division: □Operation & Quality □Supply Chain □Sales & Marketing □Finance

Part two: The following 49 questions test the perception of Jordanian Manufacturing Companies employees about the implementation of Supply Chain and Competitive Advantages. Please, rate each question according to actual implementation and not based on your belief, as follows: 1 = Never Implemented, 2 = Slightly Implemented, 3 = Sometimes, 4 = Almost Implemented, 5 = Frequently Implemented.

No.	Item	Never Implemented	Slightly Implemented	Sometimes	Almost Implemented	Frequently Implemented
	Situational leadership					
	Directing					
1.	The project leader assigns the tasks for each team member.	1	2	3	4	5
2.	The project leader defines how the task should be done.	1	2	3	4	5
3.	The project leader supervises team members closely.	1	2	3	4	5
4.	The project leader tells when the task should be done.	1	2	3	4	5
5.	The project leader identifies instructions based on the situation.	1	2	3	4	5
6.	The project leader guides all-important decisions.	1	2	3	4	5
7.	The project leader creates a common language within the team.	1	2	3	4	5
	Coaching					
8.	The project leader follows up with team members to achieve the company objectives.	1	2	3	4	5
9.	The project leader leads team members closely.	1	2	3	4	5
10.	The project leader discusses with the team members their suggestions.	1	2	3	4	5
11.	The project leader engages the awareness in mission achievement with team members	1	2	3	4	5
12.	The project leader monitors the task accomplishment for each team member	1	2	3	4	5
13.	The project leader involves the team members in decision making	1	2	3	4	5
14.	The project leader distributes tasks according to individual team member ability.	1	2	3	4	5
	Support					
15.	The project leader encourages team member involvement.	1	2	3	4	5
16.	The project leader provides appropriate resources.	1	2	3	4	5
17.	The project leader concerns about socio-emotional aspects.	1	2	3	4	5
18.	The project leader pushes team members to contributes to decision making.	1	2	3	4	5

19.	The project leader supports team members to overcome obstacles.	1	2	3	4	5
20.	The project leader facilitates team members to use the resource efficiently.	1	2	3	4	5
21.	The project leader appreciates team members activities.	1	2	3	4	5
	Delegating					
22.	The project leader authorizes team members in delivering customer satisfaction.	1	2	3	4	5
23.	The project leader allows the team members to deal with problems directly.	1	2	3	4	5
24.	The project leader empowers team members to respond to problems.	1	2	3	4	5
25.	The project leader gives team members the authority for using alternatives.	1	2	3	4	5
26.	The project leader empowers team members decision making.	1	2	3	4	5
27.	The project leader mandatories the team members on behalf of himself for the required support.	1	2	3	4	5
28.	The project leader appreciates team members positive results.	1	2	3	4	5
	Project Performance					
	Cost					
29.	The project team develops a partnership with suppliers.	1	2	3	4	5
30.	The project team reduces delivery cost.	1	2	3	4	5
31.	The project team minimizes processes cycle cost.	1	2	3	4	5
32.	The project team uses appropriate resources.	1	2	3	4	5
33.	The project team adheres to the approved budget.	1	2	3	4	5
34.	The project team qualifies on multi-task functions.	1	2	3	4	5
35.	The project team eliminates the waste	1	2	3	4	5
	Time					
36.	The project team submits the project on time.	1	2	3	4	5
37.	The project team minimizes the setup time.	1	2	3	4	5
38.	The project team reduces the operations cycle time.	1	2	3	4	5
39.	The project team accelerates the delivery time.	1	2	3	4	5
40.	The project team uses digital communications.	1	2	3	4	5
41.	The project team applies time management.	1	2	3	4	5
42.	The project team applies Just in Time inventory	1	2	3	4	5
	Quality					
43.	The project team deals with approved quality suppliers.	1	2	3	4	5
44.	The project team follows customer values.	1	2	3	4	5
45.	The project team involves an external quality audit.	1	2	3	4	5
46.	The project team follows industry standards.	1	2	3	4	5
47.	The project team implements (Quality Assurance and Quality Control) inspections.	1	2	3	4	5
48.	The project team uses SOPs (Standard Operating procedures).	1	2	3	4	5
49.	The project team follows government regulations.	1	2	3	4	5
No.	**Item**	Never Implemented	Slightly Implemented	Sometimes	Almost Implemented	Frequently Implemented
	Situational leadership					
	Directing					

50.	The project leader assigns the tasks for each team member.	1	2	3	4	5
51.	The project leader defines how the task should be done.	1	2	3	4	5
52.	The project leader supervises team members closely.	1	2	3	4	5
53.	The project leader tells when the task should be done.	1	2	3	4	5
54.	The project leader identifies instructions based on the situation.	1	2	3	4	5
55.	The project leader guides all-important decisions.	1	2	3	4	5
56.	The project leader creates a common language within the team.	1	2	3	4	5
	Coaching					
57.	The project leader follows up with team members to achieve the company objectives.	1	2	3	4	5
58.	The project leader leads team members closely.	1	2	3	4	5
59.	The project leader discusses with the team members their suggestions.	1	2	3	4	5
60.	The project leader engages the awareness in mission achievement with team members	1	2	3	4	5
61.	The project leader monitors the task accomplishment for each team member	1	2	3	4	5

Appendix 4: Original Data Analysis Report: Demographic: Frequency and Percentage Table

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	56	65.9	65.9	65.9
	Female	29	34.1	34.1	100.0
	Total	85	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 30 years	21	24.7	24.7	24.7
	30-39 years	36	42.4	42.4	67.1
	40-49 years	23	27.1	27.1	94.1
	More than 50 years	5	5.9	5.9	100.0
	Total	85	100.0	100.0	

Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 10 years	34	40.0	40.0	40.0
	10-19 years	33	38.8	38.8	78.8
	20-29 years	15	17.6	17.6	96.5
	More than 30 years	3	3.5	3.5	100.0
	Total	85	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	4	4.7	4.7	4.7
	Bachelor	52	61.2	61.2	65.9
	Master	27	31.8	31.8	97.6
	Ph.D.	2	2.4	2.4	100.0
	Total	85	100.0	100.0	

Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Officer	21	24.7	24.7	24.7
	Supervisor	23	27.1	27.1	51.8
	Manager	34	40.0	40.0	91.8
	Direc tor	4	4.7	4.7	96.5
	Vice President	1	1.2	1.2	97.6
	General Manager	2	2.4	2.4	100.0
	Total	85	100.0	100.0	

Division

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Operations & Quality	30	35.3	35.3	35.3
	Supply Chain	7	8.2	8.2	43.5
	Marketing & Sales	39	45.9	45.9	89.4
	Finance	9	10.6	10.6	100.0
	Total	85	100.0	100.0	

NPar Tests

Normality Test

One-Sample Kolmogorov-Smirnov Test

		Directing	Coaching	Support	Delegating	Situational Leadership	Cost	Time	Quality	Project Performance
N		85	85	85	85	85	85	85	85	85
Normal Parameters[a,b]	Mean	3.9412	3.8286	3.7765	3.7529	3.8248	3.8874	3.8992	4.0235	3.9367
	Std. Deviation	.57240	.58355	.63943	.74407	.56809	.68267	.69281	.60241	.58807
Most Extreme Differences	Absolute	.099	.131	.143	.132	.139	.118	.158	.144	.149
	Positive	.064	.054	.060	.076	.053	.080	.079	.069	.077
	Negative	-.099-	-.131-	-.143-	-.132-	-.139-	-.118-	-.158-	-.144-	-.149-
Kolmogorov-Smirnov Z		.911	1.210	1.314	1.218	1.279	1.092	1.455	1.329	1.373
Asymp. Sig. (2-tailed)		.377	.107	.063	.103	.076	.184	.029	.058	.046

a. Test distribution is Normal.

b. Calculated from data.

Factor Analysis

```
  /VARIABLES DI1 DI2 DI3 DI4 DI5 DI6 DI7
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.724
Bartlett's Test of Sphericity	Approx. Chi-Square	129.580

Df	21
Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.816	40.230	40.230	2.816	40.230	40.230
2	1.229	17.550	57.780	1.229	17.550	57.780
3	.803	11.473	69.253			
4	.774	11.056	80.309			
5	.559	7.986	88.295			
6	.429	6.132	94.427			
7	.390	5.573	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
The project leader assigns the tasks for each team member.	.687	-.330-
The project leader defines how the task should be done.	.721	-.277-
The project leader supervises team members closely.	.699	-.303-
The project leader tells when the task should be done.	.641	.249
The project leader identifies instructions based on the situation.	.400	.705
The project leader guides all-important decisions.	.651	-.223-
The project leader creates a common language within the team.	.583	.586

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Factor Analysis

```
  /VARIABLES C1 C2 C3 C4 C5 C6 C7
.
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.683
Bartlett's Test of Sphericity	Approx. Chi-Square	147.597
	Df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.848	40.684	40.684	2.848	40.684	40.684
2	1.154	16.481	57.165	1.154	16.481	57.165
3	.917	13.106	70.271			
4	.769	10.993	81.264			
5	.630	8.996	90.260			
6	.418	5.971	96.231			
7	.264	3.769	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
The project leader follows up with team members to achieve the company objectives.	.762	-.435-
The project leader leads team members closely.	.620	.241
The project leader discusses with the team members their suggestions.	.552	.606
The project leader engages the awareness in mission achievement with team members	.609	.193
The project leader monitors the task accomplishment for each team member	.665	-.346-
The project leader involves the team members in decision making	.474	.493
The project leader distributes tasks according to individual team member ability.	.735	-.373-

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Factor Analysis

```
  /VARIABLES S1 S2 S3 S4 S5 S6 S7
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.834
Bartlett's Test of Sphericity	Approx. Chi-Square	183.996
	Df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.425	48.924	48.924	3.425	48.924	48.924
2	.997	14.248	63.172			
3	.760	10.858	74.030			
4	.584	8.343	82.373			
5	.468	6.686	89.059			
6	.427	6.100	95.159			
7	.339	4.841	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
The project leader encourages team member involvement.	.734
The project leader provides appropriate resources.	.591
The project leader concerns about socio-emotional aspects.	.462
The project leader pushes team members to contributes to decision making.	.743
The project leader supports team members to overcome obstacles.	.752

The project leader facilitates team members to use the resource efficiently.	.798
The project leader appreciates team members activities.	.754

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Factor Analysis

```
  /VARIABLES DE1 DE2 DE3 DE4 DE5 DE6 DE7
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.830
Bartlett's Test of Sphericity	Approx. Chi-Square	267.358
	Df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.965	56.646	56.646	3.965	56.646	56.646
2	.795	11.364	68.010			
3	.716	10.232	78.243			
4	.567	8.103	86.346			
5	.452	6.454	92.799			
6	.269	3.840	96.640			
7	.235	3.360	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
The project leader authorizes team members in delivering customer satisfaction.	.678
The project leader allows the team members to deal with problems directly.	.734
The project leader empowers team members to respond to problems.	.787

The project leader gives team members the authority for using alternatives.	.825
The project leader empowers team members decision making.	.842
The project leader mandatories the team members on behalf of himself for the required support.	.769
The project leader appreciates team members positive results.	.606

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Factor Analysis

```
/VARIABLES COST1 CIST2 CIST3 CIST4 CIST5 CIST6 CIST7
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.821
Bartlett's Test of Sphericity	Approx. Chi-Square	251.805
	Df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.806	54.369	54.369	3.806	54.369	54.369
2	1.001	14.306	68.676	1.001	14.306	68.676
3	.686	9.805	78.481			
4	.541	7.722	86.202			
5	.417	5.952	92.154			
6	.284	4.053	96.207			
7	.266	3.793	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
The project team develops a partnership with suppliers.	.702	.374
The project team reduces delivery cost.	.719	.546

The project team minimizes processes cycle cost.	.743	.343
The project team uses appropriate resources.	.793	-.182-
The project team adheres to the approved budget.	.781	-.263-
The project team qualifies on multi-task functions.	.638	-.494-
The project team eliminates the waste	.772	-.317-

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

Factor Analysis

```
/VARIABLES T1 T2 T3 T4 T5 T6 T7
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.816
Bartlett's Test of Sphericity	Approx. Chi-Square	282.665
	Df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.947	56.383	56.383	3.947	56.383	56.383
2	.989	14.133	70.517			
3	.714	10.202	80.719			
4	.460	6.577	87.296			
5	.391	5.591	92.887			
6	.290	4.144	97.031			
7	.208	2.969	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
The project team submits the project on time.	.631
The project team minimizes the setup time.	.789
The project team reduces the operations cycle time.	.844

The project team accelerates the delivery time.	.839
The project team uses digital communications.	.553
The project team applies time management.	.783
The project team applies Just in Time inventory	.769

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Factor Analysis

```
/VARIABLES Q1 Q2 Q3 Q4 Q5 Q6 Q7
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.798
Bartlett's Test of Sphericity	Approx. Chi-Square	184.074
	df	21
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.349	47.848	47.848	3.349	47.848	47.848
2	1.008	14.402	62.249	1.008	14.402	62.249
3	.822	11.736	73.986			
4	.590	8.425	82.411			
5	.496	7.091	89.501			
6	.461	6.582	96.083			
7	.274	3.917	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
The project team deals with approved quality suppliers.	.690	.000
The project team follows customer values.	.747	-.122-
The project team involves an external quality audit.	.494	-.675-
The project team follows industry standards.	.753	.101

The project team implements (Quality Assurance and Quality Control) inspections.	.828	-.089-
The project team uses SOPs (Standard Operating procedures).	.747	.074
The project team follows government regulations.	.512	.717

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

```
RELIABILITY
  /VARIABLES=DI1 DI2 DI3 DI4 DI5 DI6 DI7
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Reliability Statistics

Cronbach's Alpha	N of Items
.739	7

```
RELIABILITY
  /VARIABLES=C1 C2 C3 C4 C5 C6 C7
```

Reliability Statistics

Cronbach's Alpha	N of Items
.751	7

```
RELIABILITY
  /VARIABLES=S1 S2 S3 S4 S5 S6 S7
```

Reliability Statistics

Cronbach's Alpha	N of Items
.814	7

```
RELIABILITY
  /VARIABLES=DE1 DE2 DE3 DE4 DE5 DE6 DE7
```

Reliability Statistics

Cronbach's Alpha	N of Items
.871	7

```
RELIABILITY
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```

Reliability Statistics

Cronbach's Alpha	N of Items
.857	7

```
RELIABILITY
  /VARIABLES=T1 T2 T3 T4 T5 T6 T7
```

Reliability Statistics

Cronbach's Alpha	N of Items
.864	7

```
RELIABILITY
  /VARIABLES=Q1 Q2 Q3 Q4 Q5 Q6 Q7
```

Reliability Statistics

Cronbach's Alpha	N of Items
.804	7

T-Test

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S2 S3 S4 S5 S6 S7 Supp DE1 DE2 DE3 DE4 DE5 DE6 DE7 Dele COST1 CIST2 CIST3
CIST4 CIST5 CIST6 CIST7 Cost T1 T2 T3 T4 T5 T6 Tim T7 Q1 Q2 Q3 Q4 Q5 Q6 Q7
Qual SL PP
  /CRITERIA=CI(.95).
```

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
The project leader assigns the tasks for each team member.	85	4.1294	.79863	.08662
The project leader defines how the task should be done.	85	3.8471	.93230	.10112
The project leader supervises team members closely.	85	4.0353	.93155	.10104
The project leader tells when the task should be done.	85	4.1882	.74792	.08112
The project leader identifies instructions based on the situation.	85	3.8118	.98191	.10650
The project leader guides all-important decisions.	85	3.9412	1.00419	.10892
The project leader creates a common language within the team.	85	3.6353	.98618	.10697
Directing	85	3.9412	.57240	.06209
The project leader follows up with team members to achieve the company objectives.	85	4.0471	.92461	.10029
The project leader leads team members closely.	85	3.8941	1.01211	.10978
The project leader discusses with the team members their suggestions.	85	3.6471	.82672	.08967
The project leader engages the awareness in mission achievement with team members	85	3.6353	.97403	.10565
The project leader monitors the task accomplishment for each team member	85	4.0706	.94854	.10288
The project leader involves the team members in decision making	85	3.6235	.88609	.09611

The project leader distributes tasks according to individual team member ability.	85	3.8824	.86481	.09380
Coaching	85	3.8286	.58355	.06329
The project leader encourages team member involvement.	85	3.8353	.85700	.09296
The project leader provides appropriate resources.	85	3.7294	.95604	.10370
The project leader concerns about socio-emotional aspects.	85	3.4588	1.00656	.10918
The project leader pushes team members to contributes to decision making.	85	3.5882	.92959	.10083
The project leader supports team members to overcome obstacles.	85	3.9294	.97331	.10557
The project leader facilitates team members to use the resource efficiently.	85	3.9412	.86400	.09371
The project leader appreciates team members activities.	85	3.9529	.91164	.09888
Support	85	3.7765	.63943	.06936
The project leader authorizes team members in delivering customer satisfaction.	85	3.8824	.91823	.09960
The project leader allows the team members to deal with problems directly.	85	3.7647	.93410	.10132
The project leader empowers team members to respond to problems.	85	3.6471	1.10955	.12035
The project leader gives team members the authority for using alternatives.	85	3.7412	.92778	.10063
The project leader empowers team members decision making.	85	3.6353	1.11106	.12051
The project leader mandatories the team members on behalf of himself for the required support.	85	3.6353	.99818	.10827
The project leader appreciates team members positive results.	85	3.9647	.91868	.09965
Delegating	85	3.7529	.74407	.08071

The project team develops a partnership with suppliers.	85	3.6824	1.01432	.11002
The project team reduces delivery cost.	85	3.8471	.82384	.08936
The project team minimizes processes cycle cost.	85	3.8706	.82791	.08980
The project team uses appropriate resources.	85	3.9647	1.01708	.11032
The project team adheres to the approved budget.	85	4.1882	.85209	.09242
The project team qualifies on multi-task functions.	85	3.8471	.90640	.09831
The project team eliminates the waste	85	3.8118	1.04077	.11289
Cost	85	3.8874	.68267	.07405
The project team submits the project on time.	85	4.0000	.93859	.10180
The project team minimizes the setup time.	85	3.7176	.86756	.09410
The project team reduces the operations cycle time.	85	3.9176	.83398	.09046
The project team accelerates the delivery time.	85	4.0471	.92461	.10029
The project team uses digital communications.	85	3.9647	.90563	.09823
The project team applies time management.	85	3.9529	.96246	.10439
Time	85	3.8992	.69281	.07515
The project team applies Just in Time inventory	85	3.6941	1.08038	.11718
The project team deals with approved quality suppliers.	85	3.9765	.85880	.09315
The project team follows customer values.	85	4.0000	.92582	.10042
The project team involves an external quality audit.	85	3.6000	1.00238	.10872
The project team follows industry standards.	85	4.1412	.86124	.09341
The project team implements (Quality Assurance and Quality Control) inspections.	85	4.2118	.83230	.09028

The project team uses SOPs (Standard Operating procedures).	85	4.0118	.83800	.09089
The project team follows government regulations.	85	4.2235	.89145	.09669
Quality	85	4.0235	.60241	.06534
Situational Leadership	85	3.8248	.56809	.06162
Project Performance	85	3.9367	.58807	.06379

One-Sample Test

	Test Value = 3					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The project leader assigns the tasks for each team member.	13.038	84	.000	1.12941	.9572	1.3017
The project leader defines how the task should be done.	8.377	84	.000	.84706	.6460	1.0482
The project leader supervises team members closely.	10.246	84	.000	1.03529	.8344	1.2362
The project leader tells when the task should be done.	14.647	84	.000	1.18824	1.0269	1.3496
The project leader identifies instructions based on the situation.	7.622	84	.000	.81176	.6000	1.0236
The project leader guides all-important decisions.	8.641	84	.000	.94118	.7246	1.1578
The project leader creates a common language within the team.	5.939	84	.000	.63529	.4226	.8480
Directing	15.159	84	.000	.94118	.8177	1.0646
The project leader follows up with team members to achieve the company objectives.	10.441	84	.000	1.04706	.8476	1.2465
The project leader leads team members closely.	8.145	84	.000	.89412	.6758	1.1124

The project leader discusses with the team members their suggestions.	7.216	84	.000	.64706	.4687	.8254
The project leader engages the awareness in mission achievement with team members	6.013	84	.000	.63529	.4252	.8454
The project leader monitors the task accomplishment for each team member	10.406	84	.000	1.07059	.8660	1.2752
The project leader involves the team members in decision making	6.488	84	.000	.62353	.4324	.8147
The project leader distributes tasks according to individual team member ability.	9.407	84	.000	.88235	.6958	1.0689
Coaching	13.091	84	.000	.82857	.7027	.9544
The project leader encourages team member involvement.	8.986	84	.000	.83529	.6504	1.0201
The project leader provides appropriate resources.	7.034	84	.000	.72941	.5232	.9356
The project leader concerns about socio-emotional aspects.	4.203	84	.000	.45882	.2417	.6759
The project leader pushes team members to contributes to decision making.	5.834	84	.000	.58824	.3877	.7887
The project leader supports team members to overcome obstacles.	8.804	84	.000	.92941	.7195	1.1394
The project leader facilitates team members to use the resource efficiently.	10.043	84	.000	.94118	.7548	1.1275

The project leader appreciates team members activities.	9.637	84	.000	.95294	.7563	1.1496
Support	11.196	84	.000	.77647	.6385	.9144
The project leader authorizes team members in delivering customer satisfaction.	8.859	84	.000	.88235	.6843	1.0804
The project leader allows the team members to deal with problems directly.	7.548	84	.000	.76471	.5632	.9662
The project leader empowers team members to respond to problems.	5.377	84	.000	.64706	.4077	.8864
The project leader gives team members the authority for using alternatives.	7.365	84	.000	.74118	.5411	.9413
The project leader empowers team members decision making.	5.272	84	.000	.63529	.3956	.8749
The project leader mandatories the team members on behalf of himself for the required support.	5.868	84	.000	.63529	.4200	.8506
The project leader appreciates team members positive results.	9.681	84	.000	.96471	.7666	1.1629
Delegating	9.329	84	.000	.75294	.5924	.9134
The project team develops a partnership with suppliers.	6.202	84	.000	.68235	.4636	.9011
The project team reduces delivery cost.	9.479	84	.000	.84706	.6694	1.0248
The project team minimizes processes cycle cost.	9.695	84	.000	.87059	.6920	1.0492
The project team uses appropriate resources.	8.745	84	.000	.96471	.7453	1.1841
The project team adheres to the approved budget.	12.857	84	.000	1.18824	1.0044	1.3720

The project team qualifies on multi-task functions.	8.616	84	.000	.84706	.6516	1.0426
The project team eliminates the waste	7.191	84	.000	.81176	.5873	1.0363
Cost	11.984	84	.000	.88739	.7401	1.0346
The project team submits the project on time.	9.823	84	.000	1.00000	.7976	1.2024
The project team minimizes the setup time.	7.626	84	.000	.71765	.5305	.9048
The project team reduces the operations cycle time.	10.145	84	.000	.91765	.7378	1.0975
The project team accelerates the delivery time.	10.441	84	.000	1.04706	.8476	1.2465
The project team uses digital communications.	9.821	84	.000	.96471	.7694	1.1600
The project team applies time management.	9.128	84	.000	.95294	.7453	1.1605
Time	11.965	84	.000	.89916	.7497	1.0486
The project team applies Just in Time inventory	5.923	84	.000	.69412	.4611	.9272
The project team deals with approved quality suppliers.	10.483	84	.000	.97647	.7912	1.1617
The project team follows customer values.	9.958	84	.000	1.00000	.8003	1.1997
The project team involves an external quality audit.	5.519	84	.000	.60000	.3838	.8162
The project team follows industry standards.	12.216	84	.000	1.14118	.9554	1.3269
The project team implements (Quality Assurance and Quality Control) inspections.	13.423	84	.000	1.21176	1.0322	1.3913
The project team uses SOPs (Standard Operating procedures).	11.131	84	.000	1.01176	.8310	1.1925
The project team follows government regulations.	12.654	84	.000	1.22353	1.0312	1.4158
Quality	15.665	84	.000	1.02353	.8936	1.1535
Situational Leadership	13.386	84	.000	.82479	.7023	.9473
Project Performance	14.685	84	.000	.93669	.8099	1.0635

T-Test

```
/VARIABLES=Dirc Coa Supp Dele SL Cost Tim Qual PP
```

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Directing	85	3.9412	.57240	.06209
Coaching	85	3.8286	.58355	.06329
Support	85	3.7765	.63943	.06936
Delegating	85	3.7529	.74407	.08071
Situational Leadership	85	3.8248	.56809	.06162
Cost	85	3.8874	.68267	.07405
Time	85	3.8992	.69281	.07515
Quality	85	4.0235	.60241	.06534
Project Performance	85	3.9367	.58807	.06379

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Directing	15.159	84	.000	.94118	.8177	1.0646
Coaching	13.091	84	.000	.82857	.7027	.9544
Support	11.196	84	.000	.77647	.6385	.9144
Delegating	9.329	84	.000	.75294	.5924	.9134
Situational Leadership	13.386	84	.000	.82479	.7023	.9473
Cost	11.984	84	.000	.88739	.7401	1.0346
Time	11.965	84	.000	.89916	.7497	1.0486
Quality	15.665	84	.000	1.02353	.8936	1.1535
Project Performance	14.685	84	.000	.93669	.8099	1.0635

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT PP
  /METHOD=ENTER Dirc Coa Supp Dele.
```

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.886[a]	.786	.775	.27889	1.754

a. Predictors: (Constant), Delegating, Directing, Coaching, Support

b. Dependent Variable: Project Performance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.827	4	5.707	73.368	.000[b]
	Residual	6.223	80	.078		
	Total	29.049	84			

a. Dependent Variable: Project Performance

b. Predictors: (Constant), Delegating, Directing, Coaching, Support

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.388	.223		1.745	.085		
	Directing	.210	.079	.204	2.643	.010	.448	2.233
	Coaching	.241	.110	.239	2.179	.032	.223	4.482
	Support	.431	.112	.469	3.841	.000	.180	5.558
	Delegating	.046	.080	.058	.576	.566	.263	3.809

a. Dependent Variable: Project Performance

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT PP
  /METHOD=ENTER Dirc Coa Supp Dele.
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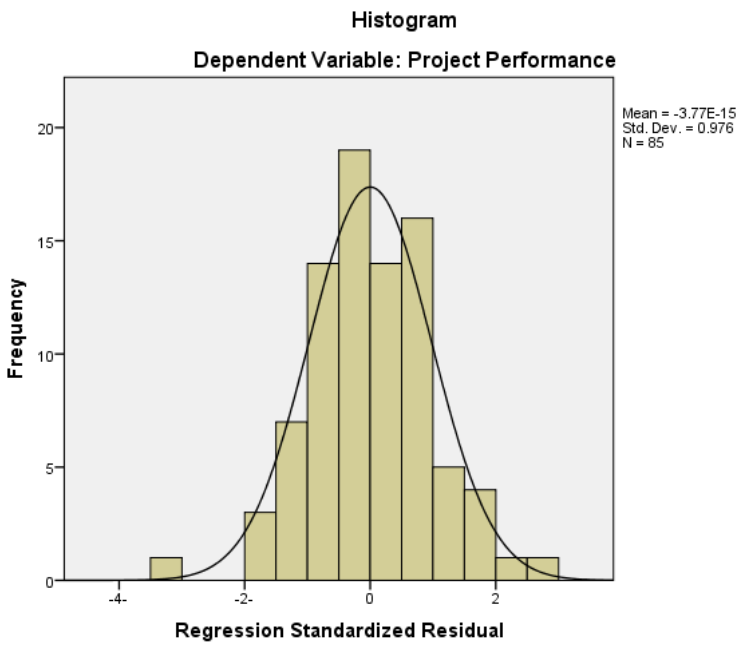
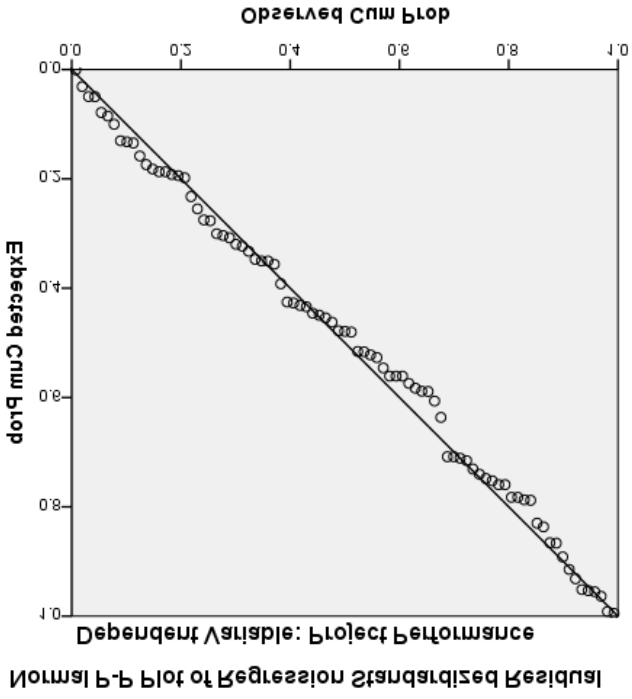
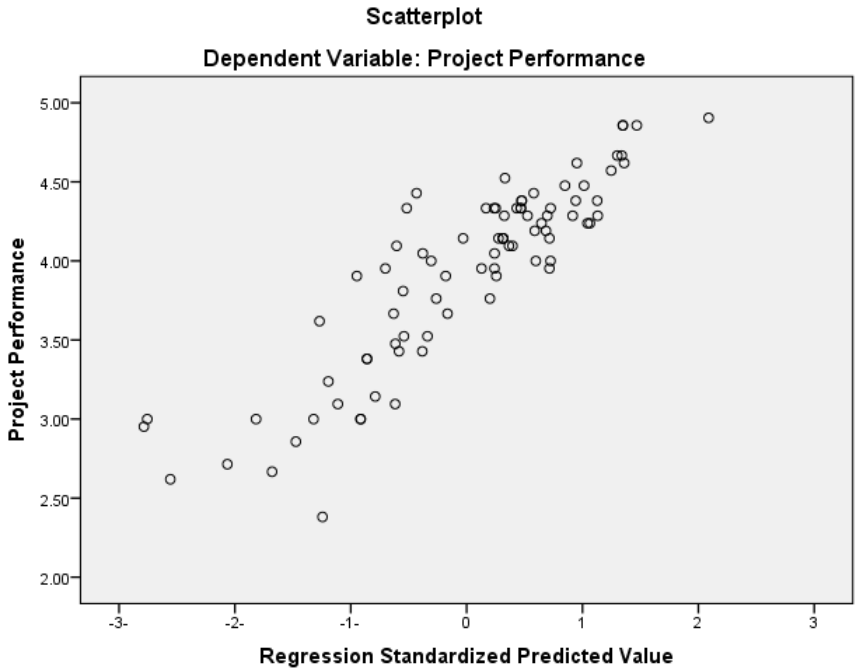
a. Dependent Variable: Project Performance, T-tabulated=2.000

Charts


Histogram
Dependent Variable: Project Performance
Mean = -3.77E-15
Std. Dev. = 0.976
N = 85
Frequency
Regression Standardized Residual


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Project Performance
Expected Cum Prop
Observed Cum Prop



Gender

		Frequency	Percent
Valid	Male	56	65.9
	Female	29	34.1
	Total	85	100.0

Item	Mean	S.D.	t	Sig.	Rank	Imp.
The project leader assigns the tasks for each team member.	4.129	.799	13.038	.000		High
The project leader defines how the task should be done.	3.847	.932	8.377	.000		
The project leader supervises team members closely.	4.035	.932	10.246	.000		
The project leader tells when the task should be done.	4.188	.748	14.647	.000		
The project leader identifies instructions based on the situation.	3.819	.982	7.622	.000		
The project leader guides all-important decisions.	3.941	1.004	8.641	.000		
The project leader creates a common language within the team.	3.635	.986	5.939	.000		
Directing	**3.941**	**.5724**	**15.159**	**.000**		

No		1	2	3	4	5	6	7	8	9
1	Directing	1								
2	Coaching	.740**	1							
		.000								
3	Support	.645**	.839**	1						
		.000	.000							
4	Delegating	.553**	.755**	.855**	1					

		.000	.000	.000						
5	Situational Leadership	.805**	.926**	.939**	.901**	1				
		.000	.000	.000	.000					
6	Cost	.588**	.715**	.736**	.654**	.753**	1			
		.000	.000	.000	.000	.000				
7	Time	.677**	.751**	.790**	.724**	.822**	.768**	1		
		.000	.000	.000	.000	.000	.000			
8	Quality	.650**	.749**	.747**	.629**	.772**	.643**	.657**	1	
		.000	.000	.000	.000	.000	.000	.000		
9	Project Performance	.715**	.827**	.850**	.752**	.878**	.908**	.914**	.848**	1
		.000	.000	.000	.000	.000	.000	.000	.000	

T-Test

```
/VARIABLES=T1 T2 T3 T4 T5 T6 T7 Tim
 /CRITERIA=CI(.95).
```

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
The project team submits the project on time.	85	4.0000	.93859	.10180
The project team minimizes the setup time.	85	3.7176	.86756	.09410
The project team reduces the operations cycle time.	85	3.9176	.83398	.09046
The project team accelerates the delivery time.	85	4.0471	.92461	.10029
The project team uses digital communications.	85	3.9647	.90563	.09823
The project team applies time management.	85	3.9529	.96246	.10439
The project team applies Just in Time inventory	85	3.6941	1.08038	.11718
Time	85	3.8992	.69281	.07515

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The project team submits the project on time.	9.823	84	.000	1.00000	.7976	1.2024

The project team minimizes the setup time.	7.626	84	.000	.71765	.5305	.9048
The project team reduces the operations cycle time.	10.145	84	.000	.91765	.7378	1.0975
The project team accelerates the delivery time.	10.441	84	.000	1.04706	.8476	1.2465
The project team uses digital communications.	9.821	84	.000	.96471	.7694	1.1600
The project team applies time management.	9.128	84	.000	.95294	.7453	1.1605
The project team applies Just in Time inventory	5.923	84	.000	.69412	.4611	.9272
Time	11.965	84	.000	.89916	.7497	1.0486

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T-TEST
  /TESTVAL=3
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  /VARIABLES=Q1 Q2 Q3 Q4 Q5 Q6 Q7 Qual
  /CRITERIA=CI(.95).
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One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
The project team deals with approved quality suppliers.	85	3.9765	.85880	.09315
The project team follows customer values.	85	4.0000	.92582	.10042
The project team involves an external quality audit.	85	3.6000	1.00238	.10872
The project team follows industry standards.	85	4.1412	.86124	.09341
The project team implements (Quality Assurance and Quality Control) inspections.	85	4.2118	.83230	.09028
The project team uses SOPs (Standard Operating procedures).	85	4.0118	.83800	.09089
The project team follows government regulations.	85	4.2235	.89145	.09669
Quality	85	4.0235	.60241	.06534

One-Sample Test

	Test Value = 3

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
The project team deals with approved quality suppliers.	10.483	84	.000	.97647	.7912	1.1617
The project team follows customer values.	9.958	84	.000	1.00000	.8003	1.1997
The project team involves an external quality audit.	5.519	84	.000	.60000	.3838	.8162
The project team follows industry standards.	12.216	84	.000	1.14118	.9554	1.3269
The project team implements (Quality Assurance and Quality Control) inspections.	13.423	84	.000	1.21176	1.0322	1.3913
The project team uses SOPs (Standard Operating procedures).	11.131	84	.000	1.01176	.8310	1.1925
The project team follows government regulations.	12.654	84	.000	1.22353	1.0312	1.4158
Quality	15.665	84	.000	1.02353	.8936	1.1535

Factor Analysis

```
  /VARIABLES Dirc Coa Supp Dele
  /MISSING LISTWISE
  /ANALYSIS Dirc Coa Supp Dele

Students\Emad Mughrabi\Data analysis-Imad.3.sav
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.792
Bartlett's Test of Sphericity	Approx. Chi-Square	274.358
	df	6
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.203	80.071	80.071	3.203	80.071	80.071
2	.492	12.307	92.377			
3	.185	4.620	96.998			
4	.120	3.002	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
Directing	.812
Coaching	.935
Support	.939
Delegating	.888

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Factor Analysis

```
  /VARIABLES Cost Tim Qual.
```

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.723
Bartlett's Test of Sphericity	Approx. Chi-Square	126.643
	df	3
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.380	79.335	79.335	2.380	79.335	79.335
2	.388	12.941	92.276			
3	.232	7.724	100.000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
Cost	.905
Time	.911
Quality	.855

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

```
RELIABILITY
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  /MODEL=ALPHA.
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Reliability Statistics

Cronbach's Alpha	N of Items
.912	4

```
RELIABILITY
  /VARIABLES=Cost Tim Qual
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability Statistics

Cronbach's Alpha	N of Items
.869	3