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Impact of Project Management Success Factors: A Case of Pakistani Private Sector

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Abstract
Project Management is considered to be important for any project. Past studies have identified various success factors, which are vital for any project. Moreover, these factors vary on the base of countries, culture, size, sector etc. However, there is absence of literature on work done on the private sector of Pakistan on the other hand a work is done on the public sector in this country. The study purposed to find out the relation in-between project success factors and project success criteria. This study also finds out what project success factors have more impact on project success criteria. To look into this relationship researcher conducted a study between three private sectors, FMCG (Fast-moving consumer goods), Banking, and Telecom of Pakistan. The study was meant to collect the responses from these sector and applied analysis to check which factor has more impact on defined success criteria. The researcher received 297 responses from 1000 survey questionnaire in which 287 responses are fully involved in this research. The main findings of the research carried out were that technical task carried most important factor for private sector of Pakistan. Project management competence was of less importance whereas top management support and financial and technical control had least significance. The rest of the four factors had little or no impact on the success criteria.
Keywords: Project success factors, Project success criteria, Pakistan, Private sector

1- INTRODUCTION

1.1 Background

Project Management is deemed to be important for a project. Bjeirmi and Munns (1996, p.81) defined it as "The way that maintaining, controlling & organizing the success of the project's objectives. Developing and utilizing the present organizational structures and resources, it looks for to manage the project by using the collection of techniques and tool, without unfavourably disturbing the regularly operation of the company." It is always aimed to make every project successful.

The project success factors define the main aim about any project many project planning tells the project team that how much work and effort is required during the project. The project team is very important because they define the success factors according to their knowledge and based on research and experience. Exploratory factor analysis is normally used to develop constructs for project success criteria and project success factors. Analysis will tell the success criteria of the project and success factors of project in this research project. The impact of these factors will lead to maximize the result toward success of project.

1.2 Research Purpose and Significance

The purpose of the research was to recognize the project success factors and project success criteria in the private sector of a developing country, Pakistan, and to discover the connection between them. Moreover, the aim of the study was to develop constructs for and success criteria and project success factors, previous studies were explored. The study, explored five success criteria and eight project success factors.

This research work will contribute to project management theory by obtaining empirical facts for project success factors and project success criteria. It will identify factors that will impact on project of private sector of Pakistan. Pakistan falls in the region of South Asia i.e. home to 180 million people. It has a long history of private sector development. As with the other developing countries, it faces the challenge of making effective use of its development spending. As a developing country, these factors may differ from the Western world but these factors relation and analysis will help us to identity the best impact on any project.

This literature review showed that little work has been done on the area under investigation especially in the developing country. Moreover, the studies on Pakistan are very vague. Researcher found only one related study which was conducted on the public sector in the developing country. Khan, Turner and Maqsood, (2013) have worked on the success factors and success criteria of the project in a developing country, Pakistan. The previous study showed that the research has done only in public sector in a developing country and the other major sector which is private sector of Pakistan has not been studied. The variables of the previous study, project success factors and the success criteria could implement and test on the private sector of Pakistan. These factors will access the main key factors and criteria of the project management would be beneficial for the project success in

private sector of Pakistan.

Project management is not widely used in Pakistan. However, it plays an important role in every mode of business and operations. Absence of project management results in ineffective spending, which can lead to losses for any business. Some studies, have identified a range of factors for the success of any project. Use of such factors can help in having effective project management. Project management is equally important for private sector and public sector So, the researcher intended to study the success factors important for project management in private sector. The results will help project managers to effectively manage projects, which will also lead to cost reduction and time saving.

No work is done in private sector of Pakistan to study the success factors of project management. A framework can be designed by the results of this study, which can be applied on any private industry. Moreover, application of these factors can easily judge the project that it will beneficial for sector's growth or not.

2- LITERATURE REVIEW

2.1 Concepts & definitions

2.1.1 What is a Project?

A project is defined by Turner (1992), as "an endeavor in which human, material and financial resources are organized in a novel way, to undertake a unique scope of work of given specification, within constraints of cost and time, so as to achieve unitary, beneficial change, through the delivery of quantified and qualitative objectives."

No project can be carried out with managing it properly, for which the concept of project management is introduced.

2.1.2 Project Management

In the present world, project management is vital for every project. The word Project Management has various understandings and is defined by a number of authors, some of the definitions are provided below:

1. Munns and Bjeirmi (1996, p.81) define it as "the process of controlling the achievement of the project objectives. Utilizing the existing organizational structures and resources, it seeks to manage the project by applying a collection of tools and techniques, without adversely disturbing the routine operation of the company."

According to various authors (Jugdev and Müller, 2005; Morris and Hough, 1987; Wateridge, 1998; Turner, 1999) project success has two components:

→ Project success factors:

These are independent variables which increase the chances of a project to be successful. Moreover, these elements can influence to increase the probability of success.

→ Project Success Criteria:

These are dependent variables, which measure the success of any project and the successful results of the project can be determined.

2.2.3 Project Management Success Criteria

Turner (2009) has identified that success needs to be defined in terms of success criteria and success factors of the project for understanding the success of projects.

Various authors like Pinto & Covin (1989), Andersen, Dyrhaug & Jessen (2002); Diallo & Thuillier (2004); Zwikael, Shimizu, & Globerson, (2005); Thomas & Fernández (2008); Niu, Lechler & Jiang (2010) Al-Tmeemy, Abdul-Rahman & Harun (2011), have identified a variety of success factors based on different criterias such as countries, culture and sectors. However, due to differences in cultures and environment it is not possible to identify a criteria set of factors which can be applied on every project Based on past literature, the following seven dimensions of project success can be identified (Khan, Turner and Maqsood, 2013):

→ Project efficiency
→ Project team impact
→ Customer impact
→ Success of the business
→ Future preparation
→ Project profile
→ Stakeholder satisfaction

According to Shenhar, Dvir, Levy and Maltz (2001) project efficiency includes only two out of three traditional measures, which are time and budget. Moreover, they define it as "a short-term dimension expressing the efficiency with which the project has been managed. It simply tells us how did the project meet its resource constraint —was it finished on time, and within the specified budget? This is

the immediate dimension with which a project can be assessed —even during execution" (P. 714)

2.2.4 Importance of success factors

The project success factors define the main aim about any project. Project planning tells the project team that how much work and effect required during the project. The project team is very important because they define the success factors according to their knowledge and based on research and experience. A list of the importance of success factors are identified in the literature (Khan et al, 2013)

- → Project Management Competence
- → Organizational and managerial environment
- → Financial and Technical Control
- → Top Management Support
- → Technical Tasks
- → Personnel
- → Project Characteristics
- → Contract/consultant performance

2.3 Theoretical reflections and Critical analysis of the literature

2.3.1 Overview of success criteria and success factors of the project

According to Muller and Turner (2006), project success criteria vary from project to project. The success of any project is also judged on the bases of personal objectives. It means what is a success factor for one individual might be a failure for another individual.

2.3.2 Project Success Criteria

A basic criteria of time, cost and quality is provided in literature, which is named "The iron triangle" by Atkinson (1999). These criteria are easy to be measured (Willard, 2005).

Initially a traditional approach was adopted to determine the success of any project. As stated by Pinto and Slevin (1998, p.67), "Projects are often rated successful because they have come in on or near budget and schedule and achieved an acceptable level of performance. These characteristics may be used because they are the easiest to measure and they remain within the realm of the project organization."

However, this approach was considered to be misleading as stakeholders like customers and organizational expectation was ignored (Shenhar, Levy and Dvir, 1997). This resulted in adding elements like customer satisfaction and welfare of customers to project success criteria (DeCotis and Dyer, 1979; Paolini and Glaser 1977; Pinto and Slevin, 1988).

Freeman and Beale (1992) identified seven success criteria, out of which the important and commonly used were:

1- Technical criteria of performance
2- Efficiency criteria of execution
3- Managerial criteria and organizational criteria Implications (mainly customer satisfaction)
4- Growth of personal
5- Manufacturability and business performance

Similarly, three success criteria were identified by Cooper and Kleinschmidt (1987), which were financial performance, opportunity window and market impact.

Three different features of project performance on which the success and failure of any project can be determined were classified by Pinto and Mantel (1990), the implementation process, the perceived value of a project and client satisfaction.

A study was conducted by Dvir and Shenhar (1992) on business units. They identified that according to business units, the success of any project is based on four aspects, which are profitability level, level of sales and new orders, generating new opportunities and preparation of new scientific and technological setup.

According to Pinto and Slevin (1988) the importance of project success criteria changes with time. It means that in the early years of a project, internal factors like, being in budget, schedule and technical performance are important. Whereas with the change in the stage of the project, external factors like customer needs and satisfactions deem to be of more importance.

A similar view point has been provided by Baker et al (1988), who propose that the importance of budget and time finishes once the project has been completed. Moreover, criteria like customer satisfaction and organizational benefits deem to be important once the project has been completed.

Anderson, Dyrhaug and Jessen (2002) has discussed a number of success criteria which is described in table 2.1:

Table 2.1: Project Success criteria

Project goals achieved	Finished on time Finished within budget According to planned quality standards
Learning and motivation	Lesson learnt from project Motivation for future projects Experiences are discussed Experiences are assembled Projects are closed professionally
Project purpose achieved	End product is used as planned Project is considered to be success

Source: Anderson, Dyrhaug and Jessen (2002, p.2)

According to Turner (2009) project success is understood differently by different stakeholders over a different span of time. It is further explained in table 2.2:

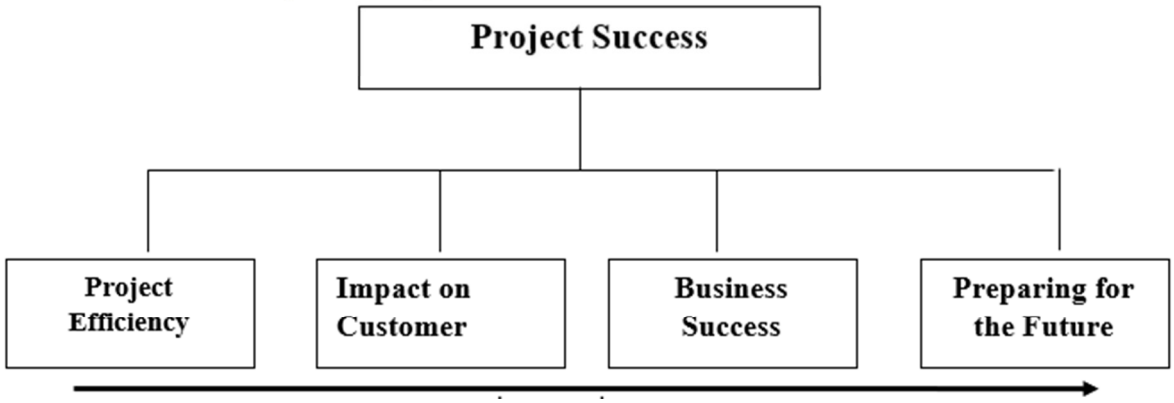
Table 2.2: Project Success with reference to Stakeholder and Timescale

Measure of Success	Stakeholder	Timescale
The project increases the shareholder value of the parent organization	Shareholders	End plus years
The project generates a profit	Board	End plus years
The project provides the desired performance improvement	Sponsor	End plus years
The new asset produced by the project works as expected	Owner	End plus months
The new asset produces a product or provides a service that consumers want to buy	Consumers	End plus months
The new asset is easy to operate	Operators	End plus months
The project is finished on time, to budget, and with the desired quality	All	End
The project team had a satisfactory experience working on the project and it met their needs	Project team	End
The contractors made a profit	Contractors	End

Source: Turner (2009)

Shenhar, Levy and Dvir (1997) have identified the project success criteria on the bases of time. It is further presented in figure 2.1:

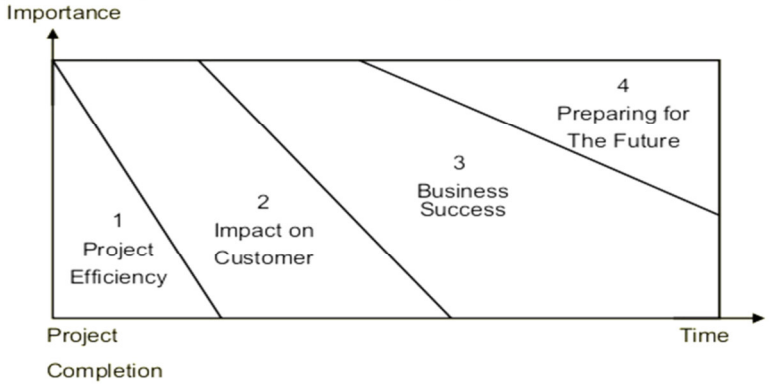
Figure 2.1 Project success dimensions on the basis of time



Source: Shenhar, Levy and Dvir (1997, p.11)

They further discussed that the importance of success depends on different phases of time. It is presented in figure 2.2:

Figure 2.2 Project success dimensions' importance with reference to time



Source: Shenhar, Levy and Dvir (1997, p.11)

In a later study made by Shenhar and Dvir (2007), the categories of project success which are five were identified:

- → Efficiency of the project
- → Impact on project team
- → Impact on Project customer
- → Success of business
- → Future Preparation

These five categories are further explained in table 2.3:

Table 2.3: Identified Project Success Criteria

Efficiency	Impact on Team	Impact on Customer	Business Success	Preparation for the Future
Meeting schedule	Team satisfaction	Meeting requirements	Sales	New technology
Meeting cost	Team morale	Meeting specification	Profits	New market
Yield, performance, functionality	Skill	Benefit to the customer	Market share	New product line
	Team member growth	Extent of use	ROI, ROE	New core competency
Other defined efficiencies	Team member retention	Customer satisfaction	Cash flow	New organizational capability
	No burnout	Customer loyalty	Service quality Cycle time	
		Brand name recognition	Organizational measures	
			Regulatory approval	

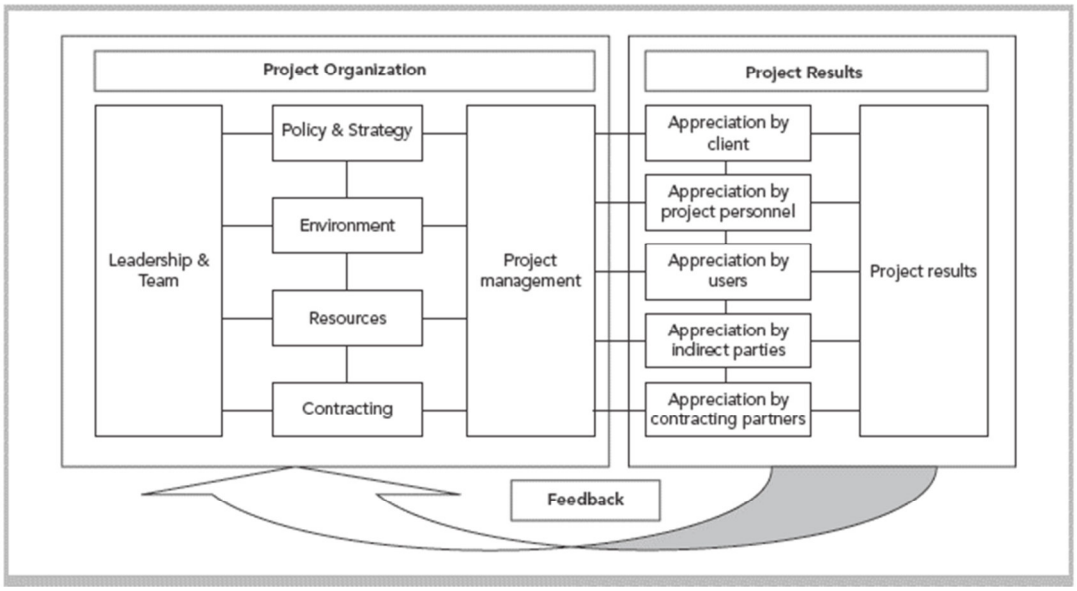
Source: Shenhar and Dvir (2007)

Moreover, Shenhar and Dvir (2007) have a similar stance to Turner (2009) that the success criteria of any project are determined at diverse stages of a project. Efficiency and Impact on Team are important when the project is at the end, impact on customer is important in the months after the project is completed and the last two; Success of business and Preparation for the upcoming are relevant in the years which follow the project completion.

In addition, the success criteria of projects have been assessed across and within the industries and no significant difference has been found (Collins and Baccarini, 2004).

A Project Excellence Model is developed Westerveld and Gaya- Walters (2001) and Westerveld (2003) and they have also provided that various stakeholders have interest in project success. It is further provided in figure 2.3:

Figure 2.3: Categories of Project Success



Source: Westerveld and Gaya- Walters (2001)

They have provided that project success can be determined by appreciation of:

→ Project client
→ Team of the project
→ End users
→ Contractors
→ Other interested parties

Thomas and Fernández (2008) have stated that least important criteria in literature such as sponsor satisfaction, business continuity, project team satisfaction and steering group satisfaction is also of immense importance.

Khan et al (2013) have identified five success criteria and have used it in their study on public sector of Pakistan:

→ Efficiency of the Project
→ Benefits of Organization
→ Impact of the Project
→ Potential in Future projects
→ Satisfaction of stakeholders

2.3.3 Important Success Factors

Pinto and Covin (1989) relate the significance of success criteria to the different stages of project lifecycle. According to which the importance of success factors changes with project progress and the critical success criteria.

A list of project success factors is discussed by Anderson et al (2002), which are provided in table 2.4:

Table 2.4: Categories of Project Success

Scope	Project mission and goals Terms of reference
Planning	Global level planning Detail level planning
Organization	Formal organization Informal organization
Execution	Activities Decisions
Control	Financial and technical control Internal and external communications

Source: Anderson et al (2002):

Project Implementation Profile (PIP) was introduced by Pinto and Slevin (1987), which consisted of 10 project success factors. However, the drawback in their PIP was that it did not consist of project manager's competence (Turner & Müller, 2005). However, this objection was declined as various studies showed that project manager's competence did not carry importance (Belout & Gauvreau, 2004; Pinto & Prescott, 1988). However, later studies reflected that personnel competence was vital (Hyvari, 2006; Kuen, Zailani, & Fernando, 2009; Pinto & Covin, 1989). Moreover, studies like Dvir, Sadeh & Malach-Pines (2006) and Muller & Turner (2007b) have highlighted that the leadership style and competence played a significant role in project success.

The competence of a Project Manager plays a significant role in the success of a project manager, especially leadership style, emotional intelligence, management focus and intellect (Turner and Muller, 2006).

According to Wang and Huang (2006), the concept of success criteria is considered different in China as compared to the common concept of project management. They state that instead of time, cost and quality, Chinese stakeholders consider relationships to be important.

Khan, Turner and Maqsood (2013) have identified a list of important success factors:

- → Project Management Competence
- → Organizational and Managerial Environment
- → Financial and Technical Control
- → Top Management Support
- → Technical Tasks
- → Personnel
- → Project Characteristics
- → Contract/consultant performance

2.3.4 Impact of Success Factors on Success Criteria

A study was carried out by Khan, Turner and Maqsood (2013) on the public sector of Pakistan and they have identified that seven success factors which are important and have an encouraging relationship with the success criteria of the project which are Project Management Competence, Organizational and Managerial environment, Financial and Technical Control, Top Management Support, Personnel, Project Characteristics and Contract/consultant performance. On the other hand, the factor Technical Tasks had no impact on project success. The next section discusses the gaps identified in literature.

Based on the literature discussed in the previous sections, the following gaps are identified:

1- No major literature was found in which impact of success factors on success criteria was studied.

2- No study was done on the private sector of Pakistan, in which the impact of success factors was determined on important success criteria

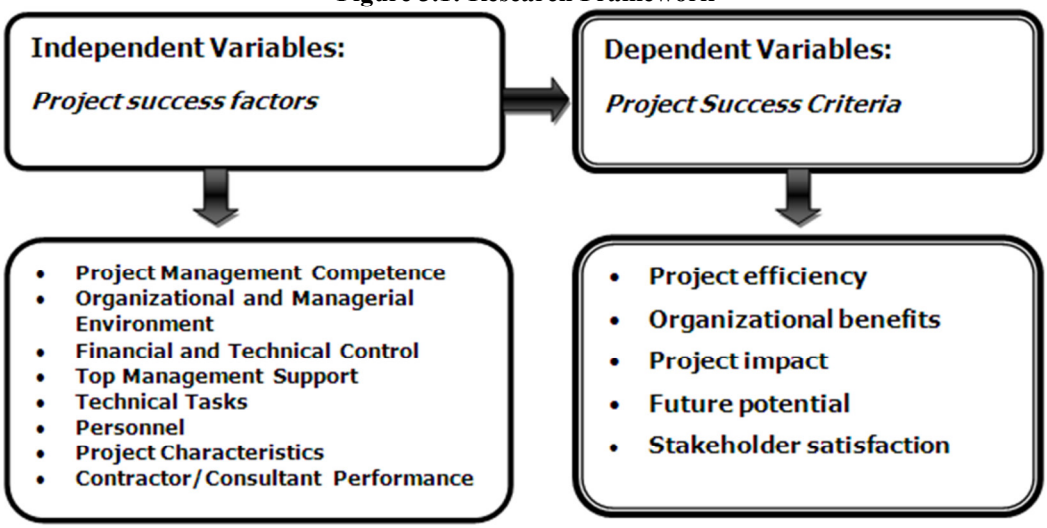
Based on the gaps identified, the researcher intended to study the impact of success factors on the key success criteria as recognized in the literature. Three industries on private sector are selected by the researcher, i.e. Banking, FMCG and telecommunication and determine the importance success factors on these industries.

3- RESEARCH METHOD

3.1 Research Framework

The three private sector industries selected are, Telecommunication, Banking and FMCG are used for the study. The identified success factors are applied in the given private sector industries. From the past study 8 success factors and 5 success criteria were identified. As the impact of success factors is checked on the success criteria, the success factors are independent variables and success criteria is dependent variables. Based on the success criteria and success factors, the following research framework is designed for the study:

Figure 3.1: Research Framework



3.2 Hypothesis of the Study:

After determining the independent and dependent variables of this research and development of few research questions, led to build up few hypotheses of the study. Zikmud, Babin, Carr, and Griffin (2010), stated that hypotheses are unverified assumptions and propositions which cautiously describe certain sensations. It involves null hypothesis and alternative hypothesis.

In this research study, there are six hypotheses being formulated to study the project success factors affect project success criteria.

Hypothesis 1:

- H0: There is no significant relationship between project success factors and project success criteria.
- H1: There is significant relationship exist project success factors and project success criteria.

Hypothesis 2:

- H0: There is no significant relationship between project success factors and project efficiency.
- H1: There is significant relationship exist between project success factors and project efficiency.

Hypothesis 3:

- H0: There is no significant relationship between project success factors and organizational benefits.
- H1: There is significant relationship exist between project success factors and organizational benefits.

Hypothesis 4:

- H0: There is no significant relationship between project success factors and project impact.
- H1: There is significant relationship exist between project success factors and project impact.

Hypothesis 5:

- H0: There is no significant relationship between project success factors and future potential.
- H1: There is significant relationship exist between project success factors and future potential.

Hypothesis 6:

- H0: There is no significant relationship between project success factors and stakeholder satisfaction.
- H1: There is significant relationship exist between project success factors and stakeholder satisfaction.

3.3 Research Methodology adopted:

As the study under investigation is a new phenomenon, so the purpose of the study is exploratory, and the researcher intends to use inductive approach. For collection of data purposes and analysis of data, quantitative method is used.

The study was based on three industries of private sector, i.e. Telecommunication, FMCG and banking. Using the random sampling technique and consult with “raostat” sample size calculator, the questionnaires were sent via email to 900 people. The link of Google forms was sent in the email. 100 forms were given physically. The responses were collected in 2 weeks. Total 297 responses were collected and 287 were used for analysis.

A copy of the questionnaire provided in notes was sent electronically to all respondents. 900 questionnaires were sent via email, having the link of google forms in it and 100 questionnaires were filled in physically by the respondents. Out of 1000 respondents, 297 responded and 287 responses were usable for analysis. So, based on this information the response rate was 29.7%.

In table 3.1 details of dependent and independent variables is provided.

Table 3.1 Details of Dependent and Independent Variables

Dependent Variables - Project Management Success Criteria	Project Efficiency
	Organization Benefits
	Project Impact
	Future Potential
	Stakeholder Satisfaction

Independent Variables - Importance of Project Management Success Factors	Project Management Competence
	Organizational and Managerial Environment
	Financial and Technical Control
	Top Management Support
	Technical Tasks
	Personnel
	Project Characteristics
	Contract / Consultant Performance

Based on the variables given in table 4.1, a detailed close-ended questionnaire was designed, with the scales of 1-5, where 1(one) = Strongly Disagree, 2(Two) = Disagree, 3(Three) = Neutral, 4(Four) = Agree and 5(five) = Strongly Agree.

The questionnaire consists of three sections, where the first section discussed about the personal details, section 2 discussed the dependent variables, which were Project Management Success Criteria and section 3 consisted of Importance of Project Management Success Factors. A copy of the questionnaire used for collection of data is provided in notes.

3.4 Data Analysis Techniques

As discussed in the previous section, the total responses received by the researcher were 297, out of which 10 were incomplete so they were rejected in the initial screening and 287 responses were used for data analysis.

The reliability of the data collected was checked through Cronbach alpha. All the reliability tests were higher than 79 %, which reflected that the data used for was analysis was highly reliable. Once the Cronbach alpha was applied, the data was further analysed.

For further testing regression was applied on the data. First one to one regression was applied on the values of dependent versus independent values. Afterwards, one to many regression tests was applied on the data.

3.5 Software used for analysis

As discussed in the previous section, to check the reliability, Cronbach Alpha was applied on the data and to analyse the data further regression was applied. To run these tests on the data, SPSS was used, whose version 23 was used

4-RESULTS AND DISCUSSION:

4.1 Analysis of Demographic Questions

In this section a brief analysis of demographics responses is provided. In table 4.1 analyses of the demographics indicate that 33.8% of the respondents were from banking sector, 30.7% were from FMCG and the remaining 35.5 % were from telecommunication sector. The details are also discussed profession wise and are provided in table 4.2 which shows the highest respondents were manager telecommunication 18.1%, manager banking 16.7% and banking employee 12.5%.

Table 4.1: Sector Wise Respondent Frequency and Percentage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Banking	97	33.8	33.8	33.8
	FMCG	88	30.7	30.7	64.5
	Telecommunications	102	35.5	35.5	100.0
	Total	287	100.0	100.0	

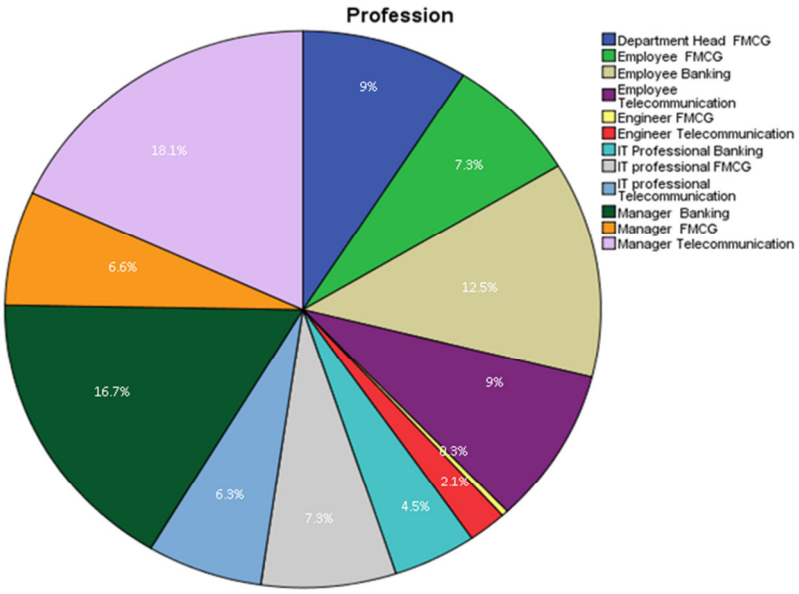
This table describes the sector wise frequencies of the data. The research chooses the data from three sectors which are banking, FMCG and telecommunication. The collected data percentage is almost equal between these sectors. The banking sector responses are 97 out of 287 which means its 33.8 % of the collected responses and the FMCG responses are 88 out of 287 (30.7%) and telecommunication responses are 102 out of 287 (35.5%).

Table 4.2 Profession Wise Respondent Frequency and Percentage

The table 4.2 table describes the frequencies and percentages of data collected profession wise.

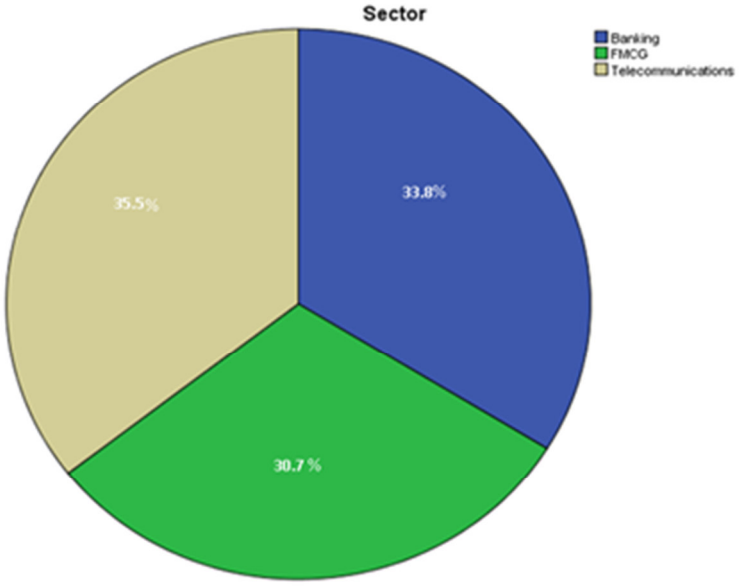
The top five data of the table are 18.1% of manager telecommunication, 16.7% of manager banking, 12.5% of employees banking, 9% of department head FMCG and 9% employee telecommunication.

Figure: 4.1: Profession Wise Data Distribution of Respondents



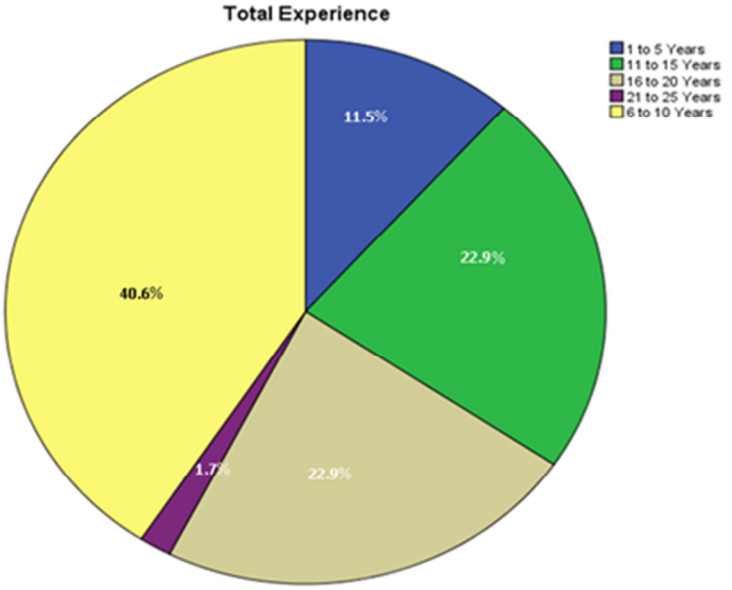
The figure 4.1, profession wise pie chart describes the data graphically and the top five profession respondent's data are Manager Telecommunication, Manager Banking, Employee banking, Departmental Head FMCG, Employee Telecommunication

Figure: 4.2: Sector Wise Data Distribution of Respondents



The figure 4.2 describe the sector wise distribution of the data, which shows that all the data collected from these three sector are equally distributed. Almost all the sectors respondents are equally respond the study, which means the three sectors study equally distributed and the results are balanced.

Figure 4.3: Experience Wise Data Distribution of Respondents



The pie chart is showing that age of experiences of the respondents. The figure 4.3, data shows that the max respondents have 6 to 10 and 11 to 15 years of experience, which shows that the respondents have great knowledge of their organization.

4.2 Reliability Tests

The test discourses the overall uniformity of the dependent and independent variable individually and combinedly to the research study's measure. The best range to check the reliability of each variable is more than 0.7. The all variables reliability test's result is more than the given range which are showing that the variables are good for this study.

Table 4.3: Independent Variable, Dependent variable, Reliability Test Summary

		Cronbach's alpha	Cronbach's alpha
Dependent Variable- Project Success Criteria	Project Efficiency	0.950	**0.980**
	Organization Benefits	0.915	
	Project Impact	0.894	
	Future Potential	0.881	
	Stakeholder Satisfaction	0.870	
Independent Variable- project Success Factors	Project Management Competence	0.969	**0.986**
	Organizational and Managerial Environment	0.923	
	Financial and Technical Control	0.894	
	Top Management Support	0.859	
	Technical Tasks	0.860	
	Personnel	0.851	
	Project Characteristics	0.846	
	Contract / Consultant Performance	0.797	

The table 4.3, values are higher than 0.70 which means that the selected questions are reliable for this research. The researcher applied the regression model on this empirical study. The results are developed from one to many regression, the stepwise regression also help out to find the best success criteria.

4.3 Results

Regression: (Stepwise) All dependent variables VS All Independent Variable

Hypothesis 1:

- H0: There is no significant relationship between project success factors and project success criteria.
- H1: There is significant relationship exist project success factors and project success criteria.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.577[a]	.333	.331	16.10447	.333	141.761	1	284	.000

a. Predictors: (Constant), Independent Variable
b. Dependent Variable: Dependent Variable

Coefficients[a]

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.	Col-linearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	28.576	4.226		6.762	.000		
Independent Variable	.347	.029	.577	11.906	.000	1.000	1.000

a. Dependent Variable: Dependent Variable

The table provided above is the summary for regression analysis. It shows R and R square. R is simply the correlation that indicates that how much the variables of research are correlated and that is found to be **0.577** which is high degree of correlation among variables. R square is the indication that how much our dependent variable is affected or how much variation in the dependent variable is because of independent variable. And according to our results it is found that about **33.3%** changes in the dependent variable is because of the independent variables. In coefficient analysis table the beta value indicates the average change in the dependent variable which is **28.576 %**, associated with a 1-unit change in the dependent variable, statistically controlling for the other independent variables

The significance level or the P-value (Probability) of the variable project success factor and project success criteria is according to the response received is .000 which means that null hypothesis rejected and to accept the alternate hypothesis i.e. there is relationship between project success factors and project success criteria.

Regression: (Stepwise) Project Efficiency Independent Variables VS All Independent Variable

Hypothesis 2:

- H0: There is no significant relationship between project success factors and project efficiency.
- H1: There is significant relationship exist between project success factors and project efficiency

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.560[a]	.314	.311	5.49356	.314	129.820	1	284	.000
2	.574[b]	.330	.325	5.43880	.016	6.747	1	283	.010

a. Predictors: (Constant), Top Management Support
b. Predictors: (Constant), Top Management Support, Project Management Competence
c. Dependent Variable: Project Efficiency

In stepwise Regression R (Correlation) value in first model is **0.560** and in second model is **0.560** which is high degree of correlation among variables. R square values are **31.4% & 33 %** which indicates that these two models have greater impact on project efficiency (Dependent variable) against remaining independent variables.

The significance level or the P-value (Probability) of the variable project success factor and project efficiency is according to the response received is .000 & .010 respectively, which means that null hypothesis rejected and to accept the alternate hypothesis i.e. there is relationship between project success factors and project efficiency.

Regression: (Stepwise) Organizational Benefits Independent Variables VS All Independent Variable

Hypothesis 3:

- H0: There is no significant relationship between project success factors and organizational benefits.
- H1: There is significant relationship exist between project success factors and organizational benefits.

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.518[a]	.268	.265	3.62347	.268	103.953	1	284	.000
2	.533[b]	.284	.279	3.58881	.016	6.513	1	283	.011

a. Predictors: (Constant), Technical Tasks

a. Predictors: (Constant), Technical Tasks, Financial and Technical Control

b. c. Dependent Variable: Organization Benefits

In stepwise Regression R (Correlation) value in first model is **0.518** and in second model is **0.533** which is high degree of correlation among variables. R square values are **26.8% & 28.4 %** which indicates that these two models have greater impact on organizational benefits (Dependent variable) against remaining independent variables.

The significance level or the P-value (Probability) of the variable project success factor and organizational benefits is according to the response received is **.000 & .011** respectively, which means that null hypothesis rejected and to accept the alternate hypothesis i.e. there is relationship between project success factors and organizational benefits.

Regression: (Stepwise) Project Impact Independent Variables VS All Independent Variable

Hypothesis 4:

- H0: There is no significant relationship between project success factors and project impact.
- H1: There is significant relationship exist between project success factors and project impact.

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.523[a]	.274	.271	2.81824	.274	107.178	1	284	.000
2	.537[b]	.288	.283	2.79519	.014	5.702	1	283	.018

a. Predictors: (Constant), Technical Tasks

b. Predictors: (Constant), Technical Tasks, Project Management Competence

c. Dependent Variable: Project Impact

In stepwise Regression R (Correlation) value in first model is 0.523 and in second model is 0.537 which is high degree of correlation among variables. R square values are 27.4% & 28.8 % which indicates that these two models have greater impact on Project Impact (Dependent variable) against remaining independent variables.

The significance level or the P-value (Probability) of the variable project success factor and project impact is according to the response received is .000 & .018 respectively, which means that null hypothesis rejected and to accept the alternate hypothesis i.e. there is relationship between project success factors and organizational benefits.

Regression: (Stepwise) Future Potential Independent Variables VS All Independent Variable

Hypothesis 5:

- H0: There is no significant relationship between project success factors and future potential.
- H1: There is significant relationship exist between project success factors and future potential.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.541[a]	.292	.290	2.75755	.292	117.231	1	284	.000

a. Predictors: (Constant), Technical Tasks

b. Dependent Variable: Future Poter

In stepwise Regression R (Correlation) value in the model is **0.541** which is high degree of correlation among variables. R square value is **29%** which indicates that the model has greater impact on future potential (Dependent variable) against remaining independent variables.

The significance level or the P-value (Probability) of the variable project success factor and future potential is according to the response received is **.000**, which means that null hypothesis rejected and to accept the alternate hypothesis i.e. there is relationship between project success factors and future potential.

Regression: (Stepwise) Future Potential Independent Variables VS All Independent Variable

Hypothesis 6:

- H0: There is no significant relationship between project success factors and stakeholder satisfaction.

- H1: There is significant relationship exist between project success factors and stakeholder satisfaction

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.537[a]	.288	.286	2.74909	.288	115.029	1	284	.000
2	.555[b]	.308	.303	2.71597	.019	7.968	1	283	.005

a. Predictors: (Constant), Technical Tasks
b. Predictors: (Constant), Technical Tasks, Project Management Competence
c. Dependent Variable: Stakeholder Satisfaction

In stepwise Regression R (Correlation) value in first model is **0.537** and in second model is **0.555** which is high degree of correlation among variables. R square values are **28.8% & 30.8%** which indicates that these two models have greater impact on stakeholder satisfaction (Dependent variable) against remaining independent variables.

The significance level or the P-value (Probability) of the variable project success factor and stakeholder satisfaction is according to the response received is **.000 & .005** respectively, which means that null hypothesis rejected and to accept the alternate hypothesis i.e. there is relationship between project success factors and stakeholder satisfaction.

4.4 Discussion

The results are consistent with literature which shows that success criteria as provided by various authors such as Atkinson (1999); Pinto & Slevin (1988); Freemen and Beale (1992); Anderson, Dryhaug and Jessen (2002); turner (2009) and Shenhar, Levy, Dvir (1997).

Moreover, the results of success factors are also consistent with the literature. Similar stance is provided by pinto and covin (1989); Anderson, Dryhaug and Jessen (2002); Belout & Gauvreau (2004); Pinto and Prescott (1988); Hyvari (2006); Kuen, Zailani & Fernando (2009); Dvir, Sadeh & Malach-Pines (2006); Turner & Muller (2006).

According to the results the impact of the success factors on success criteria showed that only four out of eight success factors had impact on success criteria the highest impact was of technical tasks the second important success factor is project management competence. Top management support and financial & technical control are of less importance. On the other hand, the four factors organizational & managerial environment, personnel, project characteristics and contract/ consultant performance has very less or no impact on the success criteria.

These results are different from the literature and which Khan, Turner and Maqsood (2013) pervade that all the success factors except technical task have impact on the success criteria. However, the results indicate that technical tasks are the most important success factor for the private sector, where as for the public sector it has no importance as mentioned in khan et al (2013).

5. CONCLUSION AND SUGGESTIONS:

5.1 Conclusion

The study was carried out to investigate the impact of success factor on the success criteria of three industries of private sectors i.e. Telecommunication, FMCG and Banking. The study was unique in nature because work has been done on the public sector of Pakistan but not on the private sector of Pakistan.

The results indicated the individually the importance of success factors and success criteria was consistent with literature. However, the main finding was that the impact of success factors on success criteria was different from the results given in the literature which indicated that all the success factors except technical tasks were important and had impact on the success criteria.

On the other hand, the results indicated that for private sector the most important success factor was technical tasks whereas project management competence and top management support were ranked second in importance and financial & technical control were on third.

5.2 Research Suggestions

Following recommendations for future research can be made based on this research.

- As this research shows positive association between project success factors and project success criteria and these factors need to explore further for interrelated research of many private and public sector projects specially in IT related and construction related projects.
- As there were only three private sectors responded in this research work so many more private sectors need to check this study that these factors may also be applicable on these sectors or the other

success factors may include for their project success.

- This research is mainly focused on three private sector of Pakistan that is FMCG, Telecom and banking. So it may help other developing countries to find out what their projects and how their project will success criteria and success factors.
- The technology is changing day by day so these projects factors and success criteria may be dependent of changing of the technology perspective so its and other dimension to find out the success factors and success criteria in the context of information technology.
- Every project is a unique thing but many similarities are occurring on each step of the project so the finding the true success factors and success criteria may help similar projects to find the way how to success the project using these factors. So the combination of the factors will helpful of these kind of project and will become and act like an SOP for these success.

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