



# Identifying Critical Success Factors of HEC Scholarship Projects: A Qualitative Study

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## Abstract

*The study aimed to identify critical success factors of HEC's financial assistance and scholarship projects. Financial support plays a vital role in contending difficulties of higher education access. Lack of resources prevents talented youth from realizing their potentials in getting higher education. The government of Pakistan acknowledges such constraints and has allocated multi million budget for need based scholarship for Higher Education Commission. The scholarship projects support financially disadvantaged students with the aim to elevate the financial status of the students by enabling chances to get them enrolled in universities for better future. Most of the scholarship projects launched under the HRD Division completed but faced time extension and funds shortage barriers. There is very limited research available on the CSF of scholarship projects of HRD. Having dynamic capabilities theory as the theoretical point of departure, CSF were identified through qualitative nature of study by conducting interviews of responsible officials of the HEC, Islamabad, Pakistan. The research adopts single exploratory case study approach for the analysis the cases of 5 need based projects of the HEC. The study utilized data collected from eighteen in depth face to face interviews conducted from project heads, project managers, implementing partner university officials, and beneficiary students. The collected data were analyzed by using various qualitative techniques for the validation of numerous themes of the study. The techniques include coding nodes, word tree, word tag clouds and tree map. The results from the current study extended literature relevant to the CSFs of the HRD projects. The study found overall 16 CSFs of NBS projects spread over five stages of dynamic capability. in launching, twelve CSFs during implementation phase and six CSFs in post execution stage. General recommendations on the basis of conclusion and discussion, were presented for successful launch, implementation and post execution of the HRD projects of HEC.*

**Keywords:** *Need based scholarship projects, Higher Education Commission, CSF HRD projects*

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## (1) INTRODUCTION

In developing economies, financial assistance plays a vital role in coping worries of higher education access. Dearth of financial resources thwarts talented youth from recognizing their potentials in getting higher education. The government of Pakistan concedes such constraints and allocated multi million budget for need based scholarship under the umbrella of Higher Education Commission. The scholarship projects back financially deprived students with the aim to upraise the financial status of the students by enabling chances to get them enrolled in national universities for better future. These scholarship projects are being managed by the Human Resource Development Division of the Higher Education Commission but occasionally faced barriers like time extension and funds shortage. It is assumed by the government agencies that during last 50 years declining GDP performance of Pakistan is due to inconsistent performance while relying on exogenous factors for growth and neglecting developing endogenous drivers of growth through increasing higher education access and investing in human resource development (HRD). In past insufficient procedures to increase the rate of investment, particularly in HRD, have caused a sturdy decline in the prospective of the economy and headed to augmented disparities. According to Planning Commission (2015) it will be essential to reinstate the inequity by setting top priority to developing a resilient human capital base as a requirement for sustainable development,. If we look at the success of Asian countries that have grown fastest, we can identify five key factors that differentiated their experience. No country grew successfully without political stability and policy continuity. Secondly, all successful countries invested in human resource to develop an educated and skilled workforce. The importance of human resource development (HRD) in the process of economic growth has always been highlighted by the theorists and economists (Lucas, 1988; Romer, 1990). Human resource development, intangible capital and human capital are important for technological progress that ultimately leads to the growth of economy. It is obvious from recent figure of last decades how GDP rate grown up by investing over the human resource development in the Asian countries. As shown in figure 1, China and India has acquired visible growth in GDP in four decades. In case of Pakistan a visible decline in GDP rate is observed. Nevertheless, after inception of the Higher Education Commission in 2002, government had earmarked substantial amount of GDP for education. As compared to the year 2010, in 2017, government has doubled the spending on education. There is a visible increase of 17.5 % per year in budget from 2010 to 2017. The allocated budget in 2010 was Rs. 304 billion and that was raised upto 790 billion in the year 2017 (Pakistan Economic Survey, 2018).

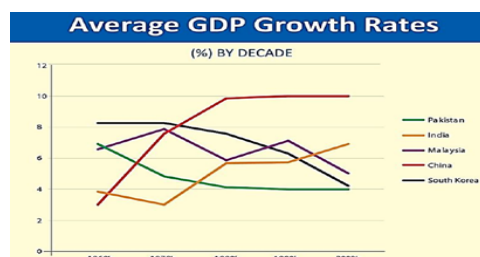


Figure 1: Average GDP growth rates

The Human Resource Development (HRD) Division was established for management and execution of scholarship programmes at HEC. This Division is responsible for formulating policies, implementing quality processes and monitoring development projects for scholars and Universities. It also provides research grants for improvement of higher education and promotion of research culture. HEC scholarship programmes are complemented by other scholarship programmes such as USAID funded Merit and Need Based Scholarship, US Fulbright Scholarships, 1000 Cuban Scholarships for studies in General Comprehensive Medicine, German Need Based Scholarships, French Need Based Scholarships, HEC Need Based Scholarships and Fee Reimbursement for less developed areas for MS, MPhil and PhD studies. Almost 40 per cent of HEC funds were specified for human resource development every year. Among a large number of initiatives for HRD, HEC formed National Scholarship Management Committee to oversee the implementation of scholarship programmes. It implemented 22 scholarship programmes of a total of 26,987 scholarships. Of which, 193 Overseas Scholarships were awarded in the said financial year, while 89 scholars returned to Pakistan after completion of their degrees. About 1530 scholars completed their PhD degrees under Overseas Scholarship Scheme for PhD in Selected Fields (Phase-I and II), while 57 scholars completed PhD under the HRD Initiative. Thirty-seven scholars were awarded financial support under the HEC initiative titled, 'Partial Support for PhD Studies Abroad' in the year 2016-17 (HEC, 2019).

## (2) HEC NEED-BASED SCHOLARSHIP PROGRAMME

HEC facilitates needy and deserving students through Need-Based Scholarship Programmes and provides completely sponsored scholarships which ranges tuition fee, living and accommodation, and monthly stipend including allowances for stationary. This program is being successfully executed in 82 public sector universities along with their campuses. So far, 18608 scholarships have been awarded to the deserving students. Province-wise detail of scholarships awarded is mentioned below:

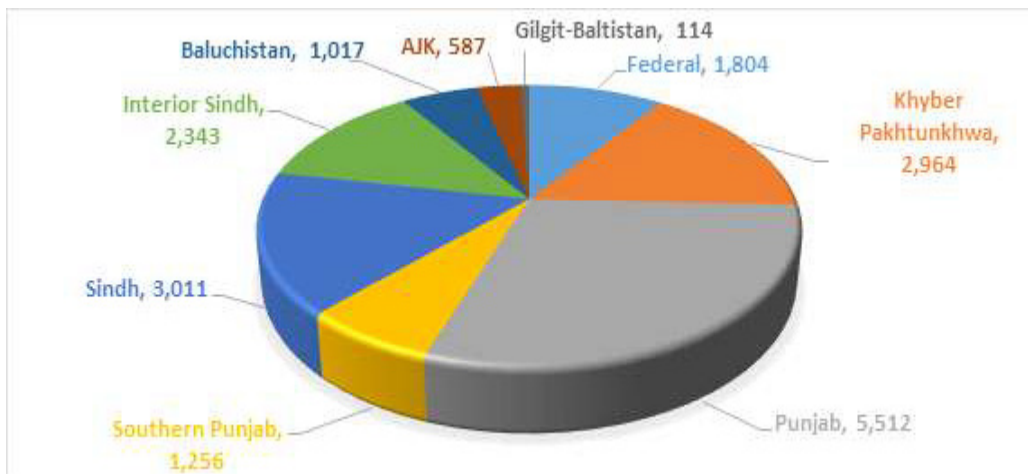


Figure 2: Distribution of scholarship region wise

The next section of paper presents literature and empirical analysis of the research studies and theoretical framework. After the next section, research methodology is discussed, followed by research findings on critical success factors of scholarship projects. The last section provides a very fruitful discussion and implications for project managers and practitioners.

### **(3) RESERACH BACKGROUND**

As number of empirical studies are evident in the literature that there is a significant contribution of investment in human resource development activities in the emancipation and progress of Asian economies (Kim and Nelson, 2000; Yah and Lloyd, 1986; Erixon, 1998; Temple, 2001; Romer, 1990). It is obvious from the experiences of these economies that manpower contributes in the economy and development of the country provided they are skilled and literate. Becker (1993) explained that it is very simple that literate individual is always capable of producing quality results and learns new technology quickly as compared to the illiterate person. In developing economies states are interested in investing in HRD projects that would lead to the economic growth. These kind of projects are important for developing economies because United Nations human development report highlights that almost 85% of population belongs to developing economies (Klugman, 2011).

Human capital growth and improvement in organizations has a significant effect on corporate competencies, which in turn provides a significant boost for further improving innovativeness. The recent research, to a large degree, supports the fact that the role of human capital practices has a positive impact on firm results (Noe et al., 2003; Youndt et al., 2004). Some also agreed that human capital growth is a requirement for successful financial results (Delaney & Huselid, 1996), and Hsu et al. backed up the value of corporate human capital in terms of firm efficiency (2007). it is proven that human capital (a strong indicator of firm performance) plays a significant role in the emergence of new companies that use technology in projects, and it is apparent that businesses are focused on having great people (accommodations for human capital) in small technology-based businesses (Shrader & Siegel, 2007).

### **(4) THEORETICAL BACKGROUND**

The classical economists has developed theoretical base for the recent work related to the relationship of economic growth and HRD. Lucas (1988) suggested that education and skills development of the human resource is one of the important kind of capital growth, that is only done by investing in HRD. This kind of investment gives long run and sustainable economic growth (Easterly, 2001). Governments like Pakistan invest in public sector through PSDP public sector development programs in various avenues of higher education through approval of projects. This study focuses on the critical success factors of need based scholarship projects of the Higher Education Commission. The theoretical point of departure for this study is the view of dynamic capability theory. As this theory studies how companies

add, shape, and redesign their inner and outer firm related capabilities into first-hand capabilities that equalize their tempestuous situation (Teece, Pisano, & Shuen, 1997). The theory undertakes that companies with better dynamic competences will beat companies with lesser dynamic capabilities. The goal of the theory is to recognize how companies use dynamic capabilities to produce and withstand a competitive advantage over other companies by reacting to and making ecological variations (Teece, 2007).

Agreeing with Helfat et al. (2007), a dynamic capability is “the capacity of an organization to purposefully create, extend, and modify its resource base” (p. 4). The resource base of a business comprises its tangible, human capital, and firm assets (Eisenhardt & Martin, 2000). Dynamic capabilities are erudite and constant forms of conduct through which an organization methodically produces and adapts its path of accomplishing tasks, to be extra operative (Macher & Mowery, 2009; Zollo & Winter, 2002). For instance, working procedures ripen from the accretion of familiarity through the recurrent performance of analogous jobs (Argote, 1999).

When it comes to identifying CSFs for scholarship projects, study of the dynamic capabilities theory is predominantly helpful as it fetches operational precision and enables forming a categorized order for ordering in decision-making (Liu et al., 2016). In understanding of the postulates of dynamic capability theory, it is selected as the theoretical point of departure for this research. The developed model is based on this theory shown in figure 3, which is discussed later in the next section.

A framework of dynamic capabilities was created by Pavlou and El Sawy (2011). The framework states that the companies first use their sensing capabilities to highlight, understand, and follow prospects that they observe from impetuses inside and outside the organization; second companies use their learning capabilities to finalize the required organizational capabilities those need review, reconstruction. Third organizations use their integrating capabilities to jointly comprehend and to do the essential vicissitudes to their functioning capabilities; forth organizations use their coordination capabilities to contrivance and use the reconfigured operative competences. Finally organization remains searching external and internal stimuli (Pavlou & El Sawy, 2006; Ettlie & Pavlou, 2006).

## **(5) CONCEPTUAL MODEL**

In the context of educational projects, the phases linked with success of a project could be distributed into five successive periods as proposed by Pavlou and El Sawy (2001). These are identification by using sensing capabilities, evaluation by using learning capabilities, integration through integrating capabilities, coordination through coordination capabilities and continuous scanning for external and internal stimuli.

As per the theoretical lenses of the current research, the mined CSFs were to trail the similar movement. The kind of CSFs in individually step would be according to the definitions presented by Pavlou and El Sawy (2001) for the CSF influencing each phase. On these basis a conceptual model of the study is developed as shown

in Fig. 3.

As suggested by Pavlou and El Sawy (2011) using sensing capabilities first stage is influenced by the strategic level objectives of the firm, the controlling setting nearby the firm and the help from top management in recognizing the capabilities of success.

The policies developed by the government also affect the success of the projects. Sensing capabilities identify, understand, and follow prospects that it observes from inside and outside stimuli at identification stage. In second stage, for successful projects managers through learning capabilities evaluate the capabilities of the organization those need revamping, reconfiguration into new knowledge for success. It requires decision making capabilities to evaluate available alternatives as well. In third stage integration of evaluated capabilities are affected CSFs. Through integrating capabilities necessary changes are collectively understood. In next stage, coordination capabilities are used to implement operational capabilities and CSF affect this stage. A main feature of application would be handling the obligatory modification in procedures and reviewing the techniques in order to raise the level of reimbursements attainable out of realizing the needed variations with a variety of CSFs distressing this phase. In next stage, the organization remains to probe exterior and interior impetuses with variety of CSFs influencing this stage (El Sawy, 2006).

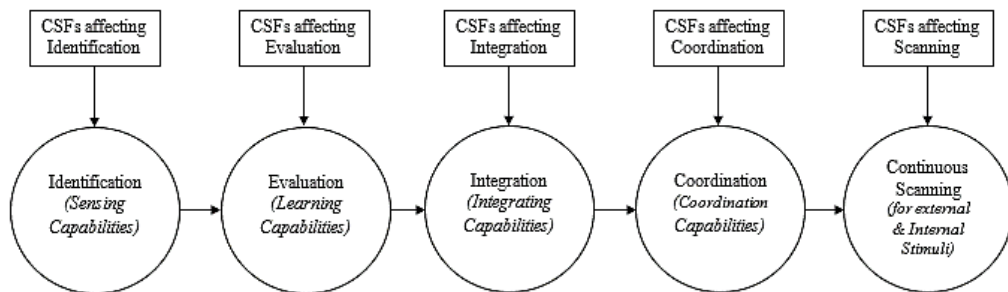


Fig 3:Conceptual Model

Positioning CSFs grounded on the step on which they were significant and following the sequence outlined by the innovation diffusion process to explain these phases, produced the conceptual model of the research as shown in the Figure 3.

## (6) RESEARCH METHODOLOGY

### (6.1) RESEARCH DESIGN

The research design of the current study is cross-sectional. Study is exploratory and illustrating on a qualitative interpretivist method. It was considered suitable to achieve the research aim of identifying CSF of need based scholarship projects



and its practical implication through personal interviews (Levy et al., 2010). In qualitative research it is common that participant involvement, data collection and its analysis are occurred simultaneously. In this research QSR Nvivo 10 (Gibbs, 2002) was used for handling and coding the data collected in terms of transcripts of interviews. As the study is exploratory in nature, all the transcripts and data was analyzed through qualitative content analysis (Miles et al., 1994).

## (6.2) DATA SAMPLE AND DATA COLLECTION

Since our focus was on project pertaining to the need based scholarship, hence, we selected Higher Education Commission of Pakistan where several need based scholarship projects are providing financial assistance to the needy students of national public and private sector universities. The study sampled project directors, project managers, project coordinators, and deputy project managers based on their minimum project experiences of five years. The respondents worked in major five need-based scholarship projects of Higher Education Commission. In total 18 respondents participated in the interviews. Keeping in view the nature of the study and suggestions by Bazeley (2013), purposive sampling technique for data collection is used. The sample was considered representative of all need-based scholarship projects employees. In this case, 18 interviewees were believed to give an adequate sample size as suggested by Bertaux (1981). The sample was nominated persistently to guarantee exemplification from respective project. The description of interviewees with their job role in the scholarship project, working experience and the scholarship projects are shown in the Table 1.

Table 1: Interview Participants

Code	Role	Experience Yrs	HEC Project
INT 1	Project Director	11	HEC, German, Japanese, French, USAID & OGDCL NBS
INT 2	Project Manager	8.5	Japanese and German Funded Scholarship
INT 3	Dy Project Manager	7	Needs based and merit scholarships
INT 4	Project Manager	14	Needs based and merit scholarships
INT 5	Project Director	8	HEC NBS, German, Japanese, French & OGDCL NBS
INT 6	Project Coordinator	13	All need-based Scholarships
INT 7	Project Manager	9	French and German Funded Scholarship
INT 8	Accounts Manager	6	Needs based and merit scholarship projects
INT 9	Project Manager	11	Needs based and merit scholarship projects
INT 10	Project Manager	8.5	Japanese and German Funded Scholarship
INT 11	Project Manager	10	Needs based and merit scholarships projects
INT 12	Project Coordinator	5	All need-based Scholarship projects
INT 13	Dy Project Manager	6	Needs based and merit scholarship projects
INT 14	Project Manager	10	HEC need-based Scholarship project
INT 15	Project Manager	8	Needs based and merit scholarship projects
INT 16	Project Coordinator	10	All need-based Scholarship projects
INT 17	Project Manager	12	Needs based and merit scholarship projects
INT 18	Project Coordinator	13	All need-based Scholarship projects

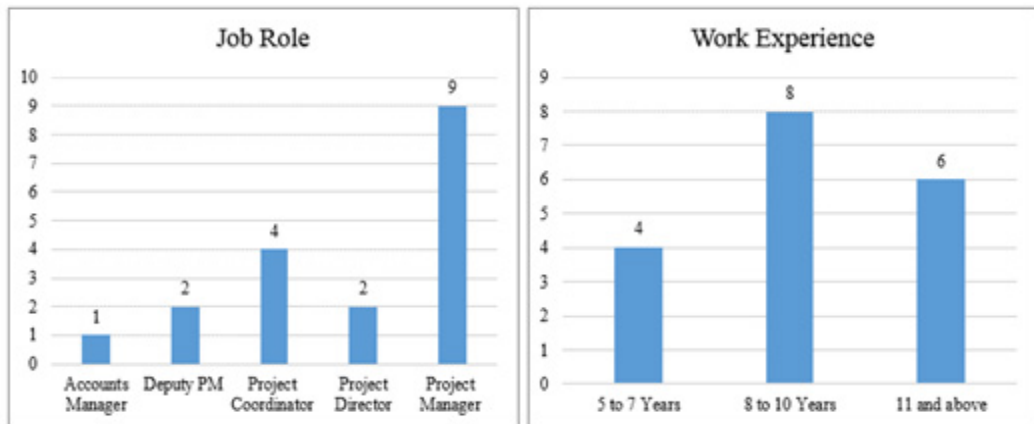


Figure 4: Demographics of interview participants

The above graphs in Fig. 4 show the demographic information of the interviewees in terms of their job role and work experience in the need based scholarship projects of HEC. The interviewees of the study included 9 project managers of need based scholarship projects, 2 project directors, 4 project coordinators, 2 deputy project managers and 1 accounts managers from major five need based scholarship projects of HEC. Similarly, in terms of work experience of the respondents of the study included 08 respondents having work experience of 8 to 10 years, 6 respondents with 11 or more years of work experience and 4 respondents with work experience of 5 to 7 years in the scholarship projects.

## (7) PROCEDURE

The researcher provided two important documents to the interviewees; HEC Vision 2025 (HEC, 2017) and HEC Annual Report 2016-17 (HEC, 2019). The aim of providing these documents was to assist interviewees to give them understanding of the overall scholarship concept and role of HEC in providing financial assistance to the needy students. The discussion over these documents ensured the common understanding of the aim of study and contribution of critical factors in project success. Later, interviewees were given the model of the study and were requested to associate each critical success factor to altered phases of the conceptual model. The phase allocated to each critical success factor was based on majority of respondents' agreement. The distribution of CSFs to the phases of the conceptual model is shown in Table 3.

The data collection was done by semi-structured interviews as deemed appropriate for qualitative study as suggested by Patton (1990). Case study research strategy was adopted. Case study method is applied for generating rich data and detailed analysis of a particular phenomenon of interest, based on the empirical investigation of a small number of cases/organizations/entities (Eisenhardt, 1989). Contact details and email addresses of the project managers were collected from the official website of Higher Education Commission. Invitations to participate in the interviews were forwarded to their email addresses and personal sitting sessions were scheduled via



telephonic appointment. Involvement in study was on volunteer basis and privacy was guaranteed. The interviews, which went around 30 to 50 minutes, comprised of questions with open ended nature with more penetrating to elucidate or succeed answers. The interviews included the questions on the critical success factors affecting the project lifecycle in view of dynamic capability theory, till completion of project and its implementation.

## **(8) DATA CODING AND DATA ANALYSIS**

The tapped interviews were converted into the transcribed form. The interviews incorporated in Nvivo for storing, managing and analyzing the data. The coding of transcribed text was done by three-stage procedure; it includes open, axial and selective coding (Neuman, 2003). In the first stage, open coding began with a detailed evaluation of the transcription. During this procedure, patterns were identified, the full data was prepared into theoretical groups and evolving themes were then settled until then each interview had been appraised and done coding. Demographic information were also given to each member at this step, memos covering added ideas or opinions regarding the interview. The following step was axial coding that evaluates the preliminary themes combined and settled with alike themes gathered together. Furthermore, one main class was chosen under that other connected topics converted subthemes. A concluding review i.e. selective coding finished the coding procedure with any discrepancies or overlying themes recognized and distinguished through associating and antagonizing extent of settlement between contributors' answers to confirm the arrangement. Before reaching the final data analysis report the whole process of data analysis was cross-checked by two senior researchers.

## **(9) RESULTS**

The results of analysis recognized overall sixteen critical success factors. The theoretical framework of the study is based on the five stages of dynamic capability theory. These identified CSFs found spread over these five stages; at identification stage 4, evaluation stage 4, integration stage 2, coordination stage 3 and at scanning for internal and external stimuli 3 critical success factors are identified from the analysis of interviews of the need based scholarship project employees of the Higher Education commission Islamabad.

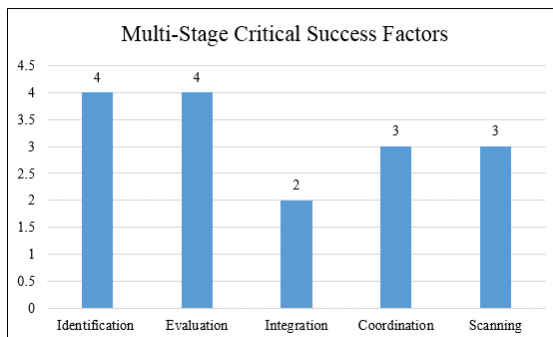


Figure 5: Multi-Stage Critical Success Factors

From the analysis of interviews transcribed data, following critical success factors were identified as themes. Afterwards the list was shared with the interviewees and seniors researchers to associate each critical success factor with the single stage of dynamic capability theory.

Table 2: The CSFs and stages of the conceptual model

No.	ID	CSF	Dynamic Capability Stage
1	Iden1	Top Management Support	Identification
2	Iden2	Clear PM Objectives	Identification
3	Iden3	Capable PMT	Identification
4	Iden4	Secure funding	Identification
5	Eval1	Focusing Sponsors' objective	Evaluation
6	Eval2	Sponsors' Capabilities	Evaluation
7	Eval3	Focusing Beneficiaries' needs	Evaluation
8	Eval4	Project Manager's Decision-Making Skills	Evaluation
9	Integ1	Effective Communication (Inward & Outward)	Integration
10	Integ1	Managing Change	Integration
11	Coord1	Sponsor's Trust & Organization's reput	Coordination
12	Coord2	Adequate Project Control	Coordination
13	Coord3	Understanding multiple culture	Coordination
14	Scann1	Project Manager's Tenure	Scanning
15	Scann2	Project Manager's Competence	Scanning
16	Scann3	Competent & Engaged Team members	Scanning

The Table 2 shows the list of CSF classified with the stage and brief summary description followed by the example of verbatim content of interviews.

Table 3: Themes: Multi-Stage Critical Success Factors

Identification		
Sensing capabilities identify, interpret, and pursue opportunities that it perceives from internal and external stimuli at identification stage.		
“Themes”	“Summary Description”	“Examples of CSFs in NBS: Illustrative quotes”
Top Management Support	Support from top management of the organization appears as CSF at identification stage while sensing opportunities for internal and external stimuli	<i>“Identification of funding opportunities is always tied with the support from top management, when they support going beyond in building effective relationship with the potential donors”</i>
Clear PM Objectives	Clear projects’ objectives support in identifying exact funding sponsors for scholarship projects	<i>“It has been always a blessing to have clear categorical objectives regarding beneficiary students, their area of study and regional priorities”</i>
Capable PMT	Project management team equipped with sensing capabilities rigorously identified suitable project sponsoring opportunities for scholarship projects at higher education level	<i>“No doubt, capabilities of project management teams persistently contribute in identifying most suitable funding sources through effective proposal development on the basis of current indigenous needs”</i>
Secure funding	Identification of secure funding agents for scholarships lead to critical success factor till end of project	<i>“Yes, while searching and identifying potential donors for scholarship projects focus on secure funding source contributed in success of our previous scholarship projects”</i>

<p>Evaluation</p> <p>Learning capabilities evaluate the capabilities of the organization those need revamping, reconfiguration into new knowledge for success.</p>		
“Themes”	“Summary Description”	“Examples of CSFs in NBS: Illustrative quotes”
Focusing Sponsors’ objective	At evaluation stage, through learning capabilities HEC’s capabilities are matched with the focused objectives of the scholarship sponsor’s	<i>“Shortlisting of funding sponsors while evaluating potential funding sources, focusing on sponsor’s objectives lead towards the success of our scholarship projects”</i>
Sponsors’ Capabilities	Evaluation of sponsor’s capabilities played critical role in success of scholarship project	<i>“It is necessary to evaluate the capability of a funding agency pertaining to their financial strength to sponsor national level scholarship projects successfully”</i>
Focusing Beneficiaries’ needs	Effective evaluation of beneficiaries’ needs i.e. needs of students and universities in terms of financial assistance appeared as CSF	<i>“We always classify the financial needs of students and universities in contrast with the industry required disciplines for successful and sustainable completion of scholarship projects”</i>

Project Manager's Decision-Making Skills	DM skills of project managers remained critical success factors while evaluating available and alternative opportunities	<i>"After negotiations and evaluations, decision making skills of our project managers always contributed in prioritizing and finalizing the best donor for nation-wide scholarship projects"</i>
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Integration		
Through integrating capabilities necessary changes are collectively understood		
"Themes"	"Summary Description"	"Examples of CSFs in NBS: Illustrative quotes"
Effective Communication (Inward & Outward)	Effective communication of Project Management team inward and outward appeared as CSF while understanding necessary changes required collectively.	<i>"At times it becomes difficult to match the offers and needs of donors and beneficiaries respectively, however, advocacy of our project management team contributes in aligning the both ends effectively"</i>
Managing Change	Matching the requirements of the stakeholders mutually	<i>"International scholarship funding agencies always follow their objectives, however we need to address the changes in the scope of our project and efficient change management plays vital role in integration"</i>

<p>Coordination</p> <p>Coordination capabilities are used for implementation of obligatory change in procedures and reviewing the techniques to increase the benefits level</p>		
“Themes”	“Summary Description”	“Examples of CSFs in NBS: Illustrative quotes”
Sponsor’s Trust & Organization’s reputation	While aligning the needs of funding agents and stakeholders, sponsor’s trust over the HEC appeared as CSF	<i>“Understanding change and implementing required changes in processes or sponsors objectives was only possible having blessed form of sponsor’s trust over good reputation of HEC”</i>
Adequate Project Control	Project control helped in coordinating and implementing required changes effectively	<i>“Project managers and our teams had always good control over project that made possible to implement required changes, to complete project successfully for the benefits of all stakeholders”</i>
Understanding multiple culture	The familiarity of a project manager with the culture of project executing organization, universities and funding agents appeared as CSF in scholarship projects	<i>“Our project managers and the team always had a good understanding of cultures at universities expanded all over the Pakistan, that helped in managing diverse challenges at various levels of project”</i>

<p>Continuous Scanning (internal &amp; external stimuli)</p> <p>The organization continues to scan external and internal stimuli with number of CSFs affecting this stage</p>		
“Themes”	“Summary Description”	“Examples of CSFs in NBS: Illustrative quotes”



Project Manager's Tenure	The experience based on the expanded tenure of the project manager contributes in continuous scanning for the internal and external stimuli	<i>"Scholarship projects at HEC are blessed to have experienced project managers having long tenure in the organization. No doubt, their experience based on their long tenure always helped in persuasion of such kind of activities those stimulate project internal and external environment into success and sustainability"</i>
Project Manager's Competence	The competencies and skills of project manager appeared as CSF in scanning stimuli internally and externally for project success	<i>"Competencies of our project managers always activated the environment favorably leading towards the success of project"</i>
Competent & Engaged Team members	The role of competent and engaged team members of project appeared as CSF in scanning the internal and external stimuli for project success	<i>"At every stage of project life cycle, competent and engaged project team members found best solution for any hurdle caused in the journey of project success"</i>

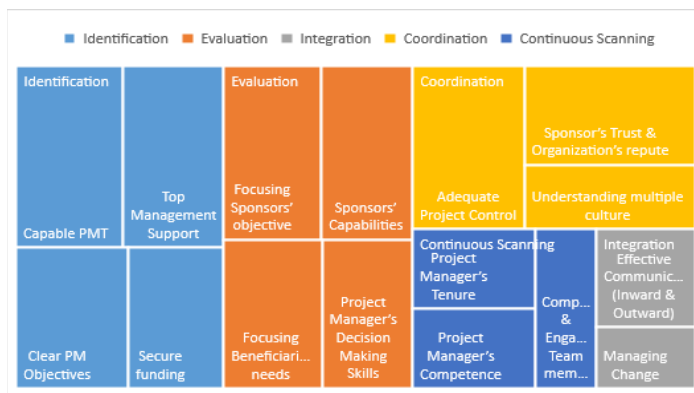


Figure 6: Word Cloud



### **(11) TOP MANAGEMENT SUPPORT – TMS**

In the need-based scholarship projects, support from the top management of the Higher Education Commission has been appeared as a critical success factor. It has been noticed that lack of interest from the top management cannot allow the project management team to pursue the prevailing opportunities in the external environment. As per responses from the respondents it has been noticed that foreign donor agencies and diplomatic mission working in Pakistan allocate huge amount of funds to support the disadvantaged students seeking financial support to start or even complete their degree programs. It entirely depends on the project management teams to identify such opportunities and intersect the common interests of both institutions in order to materialize the funding opportunities in best interest of the deserving students. The respondents are of the opinion that with the support of top management it becomes feasible to develop strong networking with the foreign missions and to attract them for spending their grants over the required fields of studies in Pakistani universities.

### **(12) CLEAR PROJECT MANAGEMENT OBJECTIVES – CPMO**

Same as other projects, in need-based scholarship projects, setting clear objectives definitely help in identifying relevant scholarship opportunities for Pakistani students of higher education level. The respondents experienced comfort in identifying potential donors based on clear categorical objectives regarding beneficiary students. It makes easy to find relevant grants when project management team device their project objectives critically aligned with the needs of students and industry lead by the regional priorities as well.

### **(13) CAPABLE PROJECT MANAGEMENT TEAM – CPMT**

At very start of the project, it depends on the capabilities of project management team that how accurately they conduct need assessment and align it with the available funding opportunities. In the initial phases of scholarship projects, effective proposal development addressing prevailing needs and offers persistently contribute in identifying suitable grants for deprived students of Pakistani universities situated in far flung areas of the country.

### **(14) SECURE FUNDING – SF**

It has been always a critical success factor for need based scholarship projects that shortlist only those funding agents who have good credibility and hold secure funding to support the long term degree programs of the disadvantaged students of the national universities. In those cases, where at identification stage, the integrity of the funding agents and the security of funds were not considered important, afterwards, the funding issues hurdled the completion of project and severely effected the study program of the students.

### **(15) FOCUSING SPONSORS' OBJECTIVE – FSO**

While shortlisting the grants available in external environment, devising scholarship project's objectives based on the sponsor's objectives helps in choosing best sponsor for the scholarship project. In every academia-industry environment, prioritizing the needs of industry and matching it with the academic fields of studies helps in improving quality of education. In case of scholarship projects, there is need to go beyond few steps ahead by focusing the sponsor's objective to mutually align the objectives of project and academia for successful completion of scholarship projects.

### **(16) SPONSORS' CAPABILITIES – SC**

It is mandatory for a successful project to evaluate the capabilities of sponsor's at evaluation stage. In very few cases, scholarship project faced delay because of lack of interest, diverted priorities and lack of economic sustainability of funding agencies. In cases where projects are evaluated on the bases of sponsor's capabilities, the decline rate of project minimizes. Hence, the learning capabilities of HEC project management team evaluates the prevailing opportunities for selection of best sponsors and completion of projects successfully.

### **(17) FOCUSING BENEFICIARIES' NEEDS – FBN**

While evaluating the available grants sources, it is important to evaluate the financial needs of students and universities. As per responses of interviewees, it become obvious that emerging needs of various disciplines and fields of studies should be focused while finalizing the scholarship projects, so that grants could only be distributed to the relevant students that could further contribute in the society and economy at large.

### **(18) PROJECT MANAGER'S DECISION-MAKING SKILL – PMDMS**

In the evaluation stage decision making skills of project managers are important. It all depends on the project manager to contribute as liaison between the top management of the HEC, focal persons of the universities and representatives of the funding agencies. In any situation of complexity where prioritization of available donors in contrast with the needs of students and universities only decision-making skills of the project managers play contributing role for the future success of the project.

### **(19) EFFECTIVE COMMUNICATION – EC**

Effective communication of Project Management team inward and outward appeared as CSF while understanding necessary changes required collectively. There are many communication styles required to successfully execute a project. It would include communication and rapport with all stakeholders, in order to accurately address the needs of both the project and others that are required to provide project support it, and with the project team members who are making the project happen.

Lending a hand to someone in good times and also creating support when they're in need is vital – when all is going well and in life, as well as when things are difficult. Mankind can not only communicate by speaking and hearing from others, but must also convey the whole meaning if it wants to be effective.

## **(20) MANAGING CHANGE – MC**

Matching the requirements of the stakeholders mutually. About any stage of the project management lifecycle is subject to change. Recognizing that transitions are an unavoidable — and often useful — part of the equation enables the best project managers to use more agile design and implementation techniques. Having plans in place to deal with transitions quickly is the quickest way to keep you focused on the prize, particularly in the face of what might seem to be frequent course changes.

## **(21) SPONSOR'S TRUST & ORGANIZATION'S REPUTE – STOR**

While aligning the needs of funding agents and stakeholders, sponsor's trust over the HEC appeared as CSF. Understanding change and implementing it required changes in processes or sponsors objectives. It becomes possible only when sponsor has a high degree of trust and the project host organization also have good repute.

## **(22) ADEQUATE PROJECT CONTROL – APC**

Project control helped in coordinating and implementing required changes effectively. Project controls are the data collection, data management, and predictive methods that are used to forecast, comprehend, and constructively affect the time and expense results of a project or program; this is accomplished by the exchange of information in formats that facilitate successful management and decision making.

## **(23) UNDERSTANDING MULTIPLE CULTURE – UMC**

The familiarity of a project manager with the culture of project executing organization, universities and funding agents appeared as CSF in scholarship projects. When cross-cultural project teams are used effectively, they can offer a pool of expertise and creative innovation that increases the probability of project completion and strengthens the organization's strategic advantage. However, in today's multicultural global business world, cultural gaps and associated tensions will obstruct the effective execution of projects. To accomplish project objectives while avoiding cultural misunderstandings, project managers must be culturally aware and foster ingenuity and inspiration through agile leadership.

## **(24) PROJECT MANAGER'S TENURE – PMT**

The experience based on the expanded tenure of the project manager contributes in continuous scanning for the internal and external stimuli. Project management offers leadership and vision, motivates employees, removes roadblocks, coaches, and inspires teams to perform at their highest. As project managers represent their teams, they also ensure that consistent lines of responsibility are maintained.

## **(25) PROJECT MANAGER'S COMPETENCE – PMC**

The competencies and skills of project manager appeared as CSF in scanning stimuli internally and externally for project success. Successful project management is entirely depending on the ability of the project manager. A skilled project manager is capable of constructing an appropriate project approach, generating a sound project schedule, and sustaining project operations as they go, as they go, and facilitating project resolution if they encounter a challenge.

## **(26) COMPETENT & ENGAGED TEAM MEMBERS – CETM**

The role of competent and engaged team members of project appeared as CSF in scanning the internal and external stimuli for project success. In addition to working procedures and their impact on the level of employee commitment, team processes and characteristics also influence the activities that groups do. Equipped with social capital, well-which contributes to committed teams and to excellent project outcomes-most teams do what's needed to improve their overall efficacy-success, they will thrive. An organization's social services include those that benefit the staff, such as a welcoming, supportive, and an empathetic atmosphere, and encouraging personnel.

## **(27) THEORY IMPLICATION**

Dynamic capabilities theory observes how organizations incorporate, shape, and redesign their internal and external specific capabilities into novel capabilities that equal their tempestuous setting (Teece, Pisano, & Shuen, 1997). Taking benefit from the conceptual model developed in this research, the critical success factors are identified and anchored with each stage of dynamic capability theory utilizing the expert opinion of the practitioners. The theory allows for identification of various critical success factors utilizing identification, evaluation, Integration, Coordination and scanning capabilities of the project team. The study deliberately focused on the context of those factors which contribute critically in the success of project. Previous researches have primarily concentrated on activities of the organizations relevant to the success of project, though observing the concept of activities as dispersed construct. This research has mainly focused CSFs of scholarship projects undertaken by the Higher Education Commission of Pakistan. Keeping in view the role of funding agencies and top management of the HEC, CSFs have been identified critically through the lens of dynamic capability theory. In this research CSFs are portrayed as a possibly comprehensible and clarified set of interconnected CSFs that can be recognized and followed through an out the project life until success. This research has identified those success factors which can possibly increase the chances of success of scholarship projects and could help in identifying potential donors and managing the continuity of the funds to complete the project successfully. This research highlighted that while utilizing dynamic capabilities the identified CSFs are an important resource in the domains of scholarship projects.



## **(28) CONCLUSIONS**

The study offers experts a comprehensive and clear framework for identifying, evaluating, integrating, coordinating and scanning opportunities for the success of scholarship projects. The developed framework focuses on a useful amalgamation of connected success factors. This study also proves the vibrant role of various stakeholders in project management. In terms of implementation of new scheme to continue operative, executives have to be conducive, that shows that the project directors and chiefs have to be ready to utilize dynamic capabilities in every phase of project life cycle in order to develop and complete a sustainable project. The developed framework could be useful in conversing, scheduling, regulating, and appraising project host organization in numerous settings. This framework can inspire top managers to adjust their particular role of action into existing and the obligatory means on the bases of the background and the features of the organization for successful project management. The researchers collected data from five scholarship projects, which were distributing different kinds of scholarship to the needy students of Pakistani national universities. Hence, it could not be claimed that the findings have given a comprehensive summary of the matters neighboring critical success factors in numerous types of PSDP projects of Pakistan. Notwithstanding the over-all agreement on importance of capabilities of the organizations and scholarship project stakeholders, a complete view of variety of success factors that develops this concept has to be studied more. There are numerous studies those conducted research on the CSF of projects, while frequently taking less studied specifically scholarship projects. However, the current study enhances earlier work done while presenting a specific framework, exploring the application of its magnitudes, using an integrative lens, assessing critical success factors. The addition of framework shows that it delivers a better-off and additional clear explanation of project stakeholders' role. It is encouraged more theorizing on the wholeness, efficiency, and inter-link of the recognized success factors. Lastly, and expediently, the developed framework can give real picture on how to get benefited from the identified critical success factors.

## **(29) CONFLICT OF INTEREST**

There is no conflict of interest

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