

IMPACT OF HUMAN CAPITAL PRACTICES ON PROJECT SUCCESS

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ABSTRACT

Human Resource is the most valuable asset to any organization. Unlike other assets, people are the only greatest potential asset and the only greatest potential liability that an organization will acquire as it moves about its business. Organizations are comprised of three types of major assets that are needful to an organization's ability to produce goods and services, namely, financial assets, physical assets and intangible assets. Intangible asset include intellectual capital (product patents, product designs, and process technology), goodwill, and human capital. This dissertation aims on human capital, which is most valuable intangible asset, and how it affects, an organizations' productivity. Human capital is not just the people working in an organization. It's a broad combination of their experience, attitudes, abilities, culture.etc. For more than three decades researchers from the areas of HRM have been interested in finding the relationship between human capital (which includes education, knowledge, experience, and skills) and the success of an organization. Since past decades researchers are struggling to find the relationship between human capital and the success of the project. This study evaluates the effectiveness of human capital development practices such as training and development, teamwork and trust and their impact on the successful completion of the project. A Number of researches suggest a positive relationship between human capital and organisational success. Thus, it is the responsibility of the firm to design such human resource practices that facilitate the development of human capital. By systematically reviewing the literature on this topic, It has been concluded that the human capital practices such as training and development, teamwork and trust, enhance the development of human capital and ultimately effect the completion of project successfully in time and efficient manner.

1. INTRODUCTION

Faster completion of project before time always remained a big issue to the executives of the projects, as it brings with many changes affecting the progress and success rate of the project. Emerging opportunities by the global competition and dealings with multinational firms motivates the project management in such a way to maintain its competitive position stable in the

market in a profitable manner. As mentioned by Pinto and Slevin, (1988), each project comprised of various components, like starting and ending date, particular objectives, specific budget and a set of interrelated activities. Moreover, a blend of financial and non financial, physical and material resources are required for its completions. To remain competitive project needs to be completed before its deadline and thus many of its resources are also prevented from being wasted. This in time successful completion also increases return on investment and adds value to shareholders wealth.

However, by making the use of traditional and routine based methods of project management, it is very difficult to completed the project successfully, hence it seems very important to know about the critical success factors effecting the success rate of the project, that will not only help to finish the project in shorter duration but will also facilitated the efficient use of project resources. By doing so not only the success rate of the project is increased but project effectiveness in terms of cost and quality also enhances and ultimately overall productivity of the project increases. Therefore there is dire need of identifying the critical success factors of the projects.

According to Hiltrop, J. (1996) plenty of evidence is available that represents a strong positive relationship between the organizational human capital and its performance. The focus on human capital in firms demonstrates the view that market value of the organization is less dependent on tangible resources, rather than on intangible ones, especially human resources. Organization's policies and practices that make the best use of this human resource are considered as the human capital practices. Recruitment and selection process along with the retention of the talented workforce, however, is only part of the human capital practices. The firm is also responsible to make the best use of employees skills and capabilities by encouraging both individual and organizational learning as well as building a supportive culture and environment where knowledge and experience can be build, shared and applied. Moreover, he argues that the previous researches provide the consistent evidence about the view that the human capital policies and practices of the firm have a positive influence in encouraging employees to present the desired attitude and behavior required to support and implement the competitive strategy of an organization. Furthermore, Huselid, M. (1995), in his study try to find out answer about the nature of these human capital practices. Although there are plenty of human capital practices, his research reveals that the use of 'human capital practices' being the critical success factors (including comprehensive employee recruitment and selection procedures, incentive compensation and extensive employee involvement and training) have proved a positive effect on both workers efficiency firm financial performance.

In addition, through the critical insight into the existing literature the dissertation finds that training and development helps to identify the deprived skills and capabilities and hence equip the team members with the adequate set of competencies, necessary for project success. Teamwork is also necessary as, nobody can achieve the project goals individually, and hence people work in form of a group and coordinate their activities for the successful project completion. However trust is needed to provide comfortable working environment where all members can share their ideas and bring innovation necessary to achieve competitive edge over competitors. (Carole Tansley & Sue Newell, 2007; Cohen, S.G., & Bailey, D.E.,1999).

For the purpose of this study, to measure the impact of the human capital practices, being the critical success factor, on project success, training and development, teamwork and trust were

taken into account as the human capital practice. In this study the researcher tried to find out how the human capital practices (training and development, teamwork and trust) effect the performance of project of a firm.

1.1 Research Problem

According to Gant, J., Ichniowski, C. & Shaw, K. (2002), most of the project firms are adopting the change management techniques to cope with the challenges of new technology, globalization and entry in the international market. Besides, customer's expectations regarding the quality and services of the product have put new challenges to the project firms. All of these factors forces to manage the project efficiently to ensure the in time and successful completion of the project. To make all this possible, the responsibility lies on the shoulders of the project manager to explore the critical success factors, affecting the successful completion of the project. Hence, this dissertation aims to focus on the following research question: "What is the effect of human capital practices on the success of the project".

1.2 Objectives of the Study

Some of the basic objectives, drawn from the review of the literature, are given below:

1. To find out the important effect of factors, determining the human capital practices of the firm, such as training and development, teamwork and trust, on the successful completion of project in time.
2. To identify the strength of human capital practices contributing in project success.

1.3. PROPOSITION

To analyze the effect of variables of the schematic diagram, the following proposition have been developed as under.

P:1 Training and development has a significant positive impact on the development of human capital.

P:2 Teamwork has a significant positive effect on the development of human capital.

P:3 Trust has a significant positive effect on the development of human capital.

P:4 Human capital practices has a positive impact on project success.

I. REVIEW OF LITERATURE

Throughout the literature of management, the role of human resource management for the attainment of competitive edge on competitors as well as achieving the project success is vital (Storey,J, 1989). The socio economic and technological shift has post more responsibilities on the manager for the development of new and advanced competencies and skills for cope up with these changes. Therefore, development and retention of human capital has become the necessity for the success of the project.

For the efficient project management, it is vital to bring together all the competencies of the team members and get best out of it. Moreover, the failure of the project result is huge cost and

expenses, and to avoid doing so it is the core responsibility of the project manager to discover the critical success factors that results in the success of the project. While project management the human capital faces new challenges, hence, being the critical success factor, the human capital practices comes into practice, such as training and development t, teamwork and trust, to equip human capital with the necessary knowledge, technical guidance and encouragement to deal with these challenges (Eddie Kilkelly, 2011).

2.1 PROJECT MANAGEMENT AND ITS SUCCESS

According to Scase (2001), the successful management of the project consists of four elements. First of all the project is being defined in form of an invitation to bid, that is made in form of an advertisement in the news paper or through direct contact between client and the contractor. This invitation to bid later on takes the form of a formal contract between the concerned parties. Secondly, the project is designed to describe the interrelated activities and tasks that make the project complete. Moreover the cost and quality of the required equipment as well as service delivery within a defined time frame are also defined on the basis of bid made. The purpose of developing this project design guidelines is to minimize the risk of potential operational uncertainties through the thorough risk assessment and to highlight the probable logistical difficulties that may occur during the project implementation. On the third level it comes to present a plan about how the project will be delivered. This activity converts the process design into an operating timetable and draws the directions for efficient control of project deliverables. Moreover, performance standards are also set on the basis of project design. At the last comes the project review, assessment and evaluation process. Here the project team provides the vital transparency of interrelated tasks and responsibility and in return provides the possible performance management standards to assess the team members performance while executing the operations of the project. (Scase, 2001).

Prasanta Kumar Dey, (2000), conducted their research in India and presents the findings that most of the petroleum companies are following particular project management system, that is shown in figure 1, consist of following steps: Project feasibility study, Project appraisal, Project planning, Detailed survey and land acquisition, Design and detailed engineering, Works contract preparation, Materials procurement, Project monitoring and control, Implementation and commissioning.

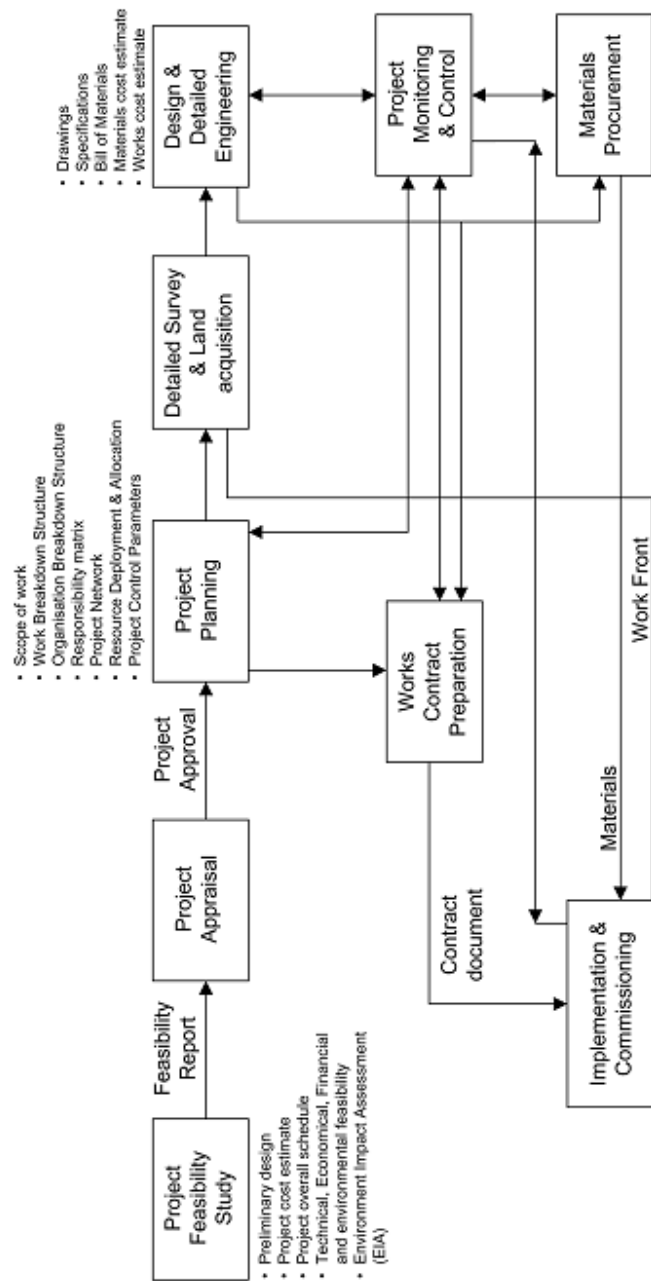


Figure.1: project management model

Source: Prasanta Kumar Dey, (2000)

On the basis of the literature review list of critical success factors affecting the project success are mentioned below:

Author	Year	Critical Success factors
Prabhakar cited the work of Belassi and Tukel	2008	that issues connected to project, firm, project managers, teamwork and project' external environment
Marshall's	2007	commercial success, preparing for future
Sofian	2003	efficient and effective execution of the project in terms of its cost and functionality
White and Fortune	2002	in time completion of the project within limited budget and according to the requirements
Poon and Wagner	2001	access, utilization, positive influence, client pleasure and diffusion of the project
Dvir et al.	1998	implementation of tasks and activities, client satisfaction and value addition by the project, meeting project design objectives and delivering advantages to the customers.
Shenharet et al.	1996	coping with project specifications, finances, activities timetable, operational performance, client needs and satisfaction, development of innovative product, entrance in new market, customer problems and providing solutions, issues of enhancing market share and development of new technology and success of the product on commercial basis.
Pinto and Slevin	1988	coping with project schedules, goals, budget, customer satisfaction

The above mentioned list of critical success factors influencing the success of the project are more focused on the financial, physical and procedural components of the project, however this dissertation aims at highlighting the effect of non financial components in terms of human capital practices, on the successful completion of the project

2.2 HUMAN CAPITAL

As mentioned by Arindam. B & Pradip K. B (2005), financial capital, material and infrastructure capital or only the word capital describe one of the essential factors of production and comprised of assets that are used in the production of other goods. These physical capitals consist of land, building, plants and machinery logistics etc., whereas financial capitals consist of cash flow of the firm. These assets are not the final goods but facilitate the production process of goods and services. Elaborating this argument Hartog, (1999), further added that only economic capital is not sufficient to produce goods and services, human capital is also required for the efficient execution of production process, hence human capital gain more importance than the economic capital and thus considered to be the scarce and vital resource necessary for the project success. Moreover, Hartog, (1999) described human capital as a factor of production just like other

capital needed in production process. Supporting the description, Arindam. B & Pradip K. B (2005), stated that indeed, human capital is required to make best use of other physical and economical capital during the production process. They further declared that human capital is personified in human resource and comprised of knowledge, skills and capabilities that are being used to bring innovation in the production process. Similarly, OECD (1998), defined human capital as the existence of relevant competencies in term of knowledge, skills and capabilities required to perform economic activities.

In the current situation most of the developing countries are not only suffering from the shortage of financial capital but there is a severe dearth of human capital, however they might have the sufficient labor available. This fact is also highlighted in some other researches that resulted in increased return on investments in human capital in developing countries as compared to the developed economies (Hartog, 1999). To cope with the shortage of human capital firms constantly require to develop and retain their human capital for the in time completion of their projects. To do so companies are taking necessary actions to design their human capital practices in such a way that develops the human capital for the ultimate success of the project.

On the basis of above literature review, this study describe human capital as the blend of individual's task related knowledge, skills and abilities, that act as one of the valuable asset and factor of production, which is required to make the best use of other factors of production, hence improving the chances of successful completion of project in time. To do so firm needs to design such human resource practices that help in developing and retaining the human capital, called human capital practices. In this study three of the important human capital practices are being highlighted that not only facilitate the development of the human capital but also retain them and results in efficient use of human capital in favor of project success.

2.2.1 Training and Development

To complete the project in time successfully, a group of individuals are involved at different levels that are: project sponsors; project managers; and team members of the project. The department of human resource is required to ensure that all the concerned human resource is competent enough to fulfill their tasks at their own level and if not what steps should be taken to fill the existing skill gaps. It has been required by the HR department to conduct the skill assessment to capture the current level of skills and if required design the training program to fill the identified skill gaps efficiently in time (Eddie Kilkelly, 2011).

According to the Office of Government Commerce (2005), Project sponsors are the top heads of the project who are accountable for holding the project and facilitating the project manager whenever is needed. However they are not involved in daily routine tasks of the project but they need to have more soft skills such as leadership, ownership etc. to directs and govern the overall project. Thus, more specific skills oriented and tailored training programs are required by the project sponsors to develop project management skills. On the other hand project managers required a much wider range of skills to achieve day to day targets and to deal with the team members. Therefore, they need more project-management skills and knowledge to ensure the completion of the project successfully within the limited budget, by meeting the particular specifications. Besides, more interpersonal and persuasive skills are needed by the project managers to facilitate the members of the project team to achieve their targets in time. Research has provided the evidences that coaching and mentoring programs have proved to be most effective training programs to develop the in competencies of the project managers(Queensland

University of Technology, 2010).

Team members of the project require realizing the mission and the objectives of the project along with their role in the success of the project. Moreover, it is very important for them to understand the policies, equipment and relevant methods that are being used throughout the project and should try their level best to meet the performance standard set for them. As stated by Sessions, R., (2009), team members must be given specific training to learn how to use the tools involved in a system. For better results the skill assessment techniques could be used to identify the deprived needs of the team members regarding task related knowledge, skills and abilities. These deprived needs should be met immediately whenever required.

2.2.2 Teamwork

In today's world of business, team members are expected more than only completing the day work. It has been expected that team members have a blend of skills that when combined together results in project success (Johnson et al., 2000). This teamwork encourage positive working relationship with project leader, and other team members. Working in a team environment requires sharing of technical knowledge and generic skills that facilitate the development of human capital (Pina & Joe, 2002). If the successful completion of the projects depends more on the human resource rather than material resource, than the vital aim of the HR department is to develop a team of competent human capital that could work together in form of a team. This teamwork not only facilitates coordinated efforts by the member but also enhances the competency level of the team members. Teams play a crucial role in the project success (Mathieu et al., 2006), and also results in increased employee satisfaction and greater organizational commitment (Stewart and Barrick, 2000) thus, ultimately projects objectives are achieved smoothly (Doolen et al., 2003; Tata and Prasad, 2004).

The main objective of teamwork is to bring innovation and coordinated efforts by the team members. According to Ford et. al. (1992), to bring creativity diverse thinking of the team members needs to be combined so that all the potential weakness could be removed beforehand, that is the crux of project success. In general, teamwork is said to be the critical success factor necessary for the project success, particularly while working in a competitive environment. Superior team association (Zirger and Hartley, 1996; Gupta and Souder, 1998), along with improved management and utilization of knowledge and competencies (Cooper and Kleinschmidt, 1987; Nonaka and Takeuchi, 1995) results in completing the project in a minimum time frame.

2.2.3 Trust

Within the specific time limit of the project trust relationship needs to be established among the project leader and its members to ensure the smooth flow of work (Meyerson et al., 1996). Without the relationship of trust the members of the project team would face difficulty in achieving the targets in a particular timeframe. Therefore, it is mandatory to have trust for the successful completion of the project, as it not only facilitate the accomplishment of tasks in time but also make the use of social capital by avoiding the conflicts between the members of the team. A lot of resources and energy is wasted when there are misunderstandings and low level of trust among the team members (Meyerson et al., 1996).

According to Mayer et al., (1995), trust is defined as the dependence of one party on the work of the other party with greater confidence that work will be done accurately as required, without the need of particular monitoring and guidance. Hence, the relationship of trust encourage the team

members to share their ideas and problems to minimize the potential risk involved in the project and motivates the members to work in form of a group and this trust relationship promotes teamwork and cooperation. Moreover, the relationship of trust must be developed among the team and the project leader as it allow the members to believe that project leader will support them while working by showing positive attitude and encouragement (Howell et al., 1990; Rousseau et al., 1998).

2.3 IMPACT OF HUMAN CAPITAL ON PROJECT SUCCESS

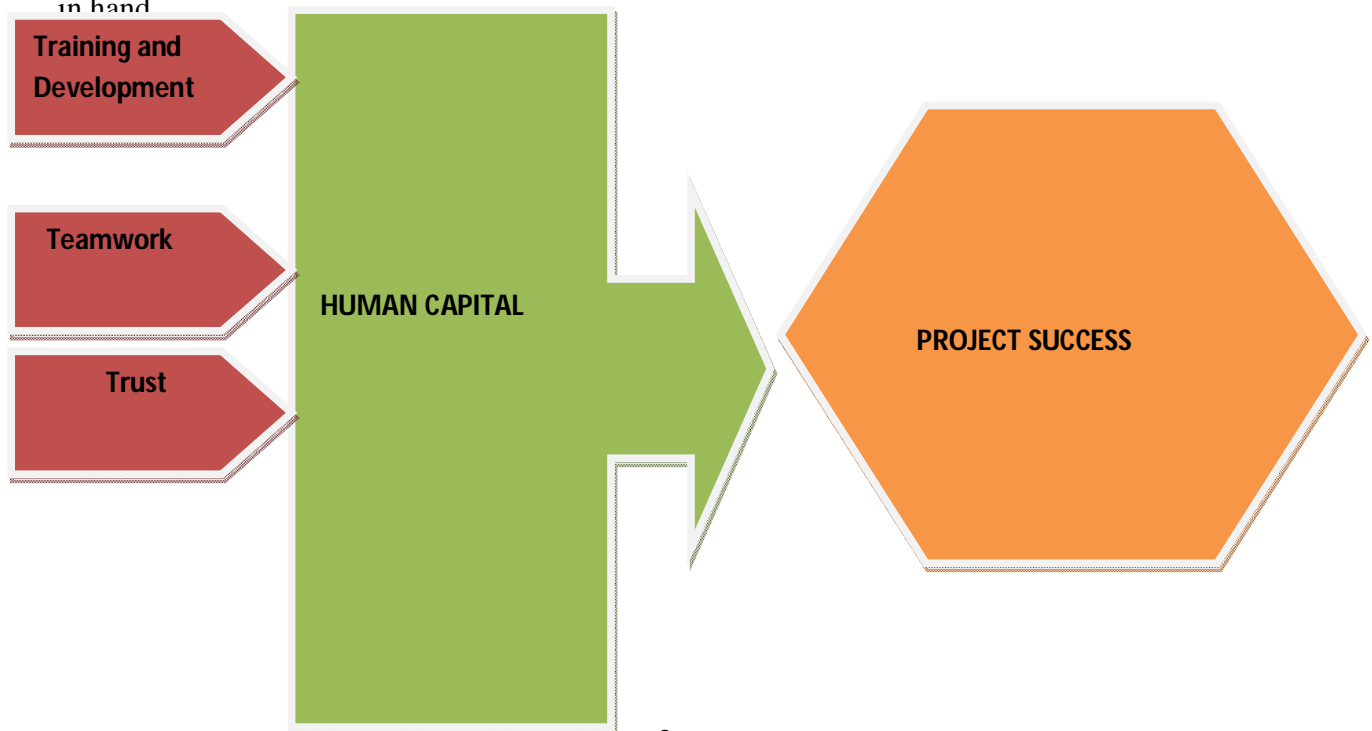
In a turbulent competitive environment, completing a project successfully with in particular time and budget is a big challenge faced by the firms. The success of the project depends on the variety of resources such as physical and financial capital, technology and human resource. However, the element of human resource is not given much importance at the time of project designing which is a wrong practice on the part of the project designers (Arindam Banik & Pradip K. Bhaumik, 2006).

The HR department must realize human capital as one of the competitive advantage of the firm. Supporting the fact, Ian Clark & Trevor Colling (2005), mentioned that it is the responsibility of the firm to develop human capital practices in such a way that leads to competency development of the team members, necessary for the project success. Furthermore, the success of the project and the overall firm depends primarily on its human resource. Hence, HR executives and practitioners perform a vital role in facilitating project-based companies by developing efficient HR policies and competent teams.

Human capital in form of effective project team collaborate their knowledge, skills and abilities in such a way that enhances project performance. It not only results in successful completion of the project but also increases the value of the stakeholders involved in the project (Carole Tansley, Sue Newell, 2007).

3. THEORATICAL FRAMEWORK

On the basis of the literature review cited, following theoretical framework is drawn for the study in hand



● Constructs of Independent Variable

● Independent Variable

● Dependent Variable

Figure. 2: Impact of Human Capital Practices on Project Success

5. RESEARCH METHODOLOGY

This is conceptual research work that is based critical review of the existing literature conducted to examine the effect of human capital practice on project success. This study will serves as a means to help acquire useful information and knowledge about the subject area. By drawing on the existing literature, not only topic under consideration is theorize, but also formulates and discusses the proposition that will help illuminate and discuss some ways for the firms to understand the effect of human capital practices on project success.

7. DISCUSSION

On the basis of the above literature review following discussion could be made.

TRAINING AND DEVELOPMENT

The findings from the reviewed literature related to the human capital practice of training and development provide the evidence that the construction companies must take necessary measures on all management levels to ensure that all the concerned human resource is competent enough, to fulfill their tasks at their own level, by offering training programs from time to time. These specific training programs mostly try to develop soft skills, professional skills and persuasive skills of the team members helps to help them learn how to use the tools involved in a system, hence ensuring the successful completion of the project. However the critical analysis of the literature reviewed depicts that skills assessment to capture the current level of skills of the team members and to design a specific training program to fill the skill gap is not often done. The findings also reflect the fact that although training and developments programs are being offered but coaching and mentoring programs are not mostly offered to develop the competencies of the individual on the job. These findings of the study are supported by the previous research work as it is mentioned that human capital practices of training and development, enhances the abilities of the project team to accomplish their tasks and activities in time (Shaneand Venkatraman et al, 2000), and plays a significant role in collaborating the organizational goals with the employees personal goals (Stone R J. Human Resource Management, 2002). Furthermore, it is said that for better organizational performance superior employee performance thus, to increase the organizational profitability, training and development programs should be design for the project teams to enhance their level of competencies (Raja A. J. Khan et al., 2011). Supporting this argument the results of the study also depicts the same fact by showing great influence of human capital on project success.

TEAMWORK

The critical analysis of the literature reviewed related to teamwork shows that the team members working in the construction companies must show their confidence that all team members share the same vision with one another in the project, to ensure team work. The findings also depicted that all team members have collective goals of the project that support the efficient completion of project. On the other hand the findings reflects that mostly common thinking is not appreciated but all team members have a proper understanding regarding the project requirements and outcomes. The findings provided the evidence that in the construction companies where technical knowledge and skills are being shared among the team member to improve the

efficiency of the project outcomes and where common way of thinking within the group is practiced, it facilitates team work and ultimately the better performance of the project. As company provides comfortable environment to its project team to use their creative thinking and contribute ideas, it enhances the chances of successful completion of the project. These results of the study are fully supported by the previous work by other researchers as human capital practice of developing teamwork allows the members to coordinate their efforts, enhance one another's skills and minimize the level of conflicts among them (Jones et al., 2007). Teamwork not only benefits the project but also helps each member to enhance their level of competencies to achieve higher career path (Froebel & Marchington, 2005). According to Cohen & Bailey, (1999), the firms that give more consideration to developing teamwork face lesser work-related issues, superior employee performance and ultimately greater organizational productivity. The results of regression analysis of this study provide the evidence that human capital practices such as teamwork do affect project success of construction companies.

TRUST

The critical analysis of the literature reviewed related to trust evaluates that in the construction companies the project team members must not mislead each other and must treat one another on a fair basis. When there is trust among the team, they can take best decisions about their tasks, necessary for the project success. The results showed that trust plays an important role in meeting the individuals' commitments. However, joint expectations are rarely negotiated among the group members. The results depict that reliability of the team members plays a vital role in building trust relationship among the group members. Moreover, telling truth about one's knowledge and skills as well as honestly describing the work experience also enhances the trust relationship. These findings are supported by the results of previous findings as human capital practice of developing trust relation among the team member and between project team and leader provides a framework for building social network (Blau, 1964; Rempel, Holmes, & Zanna, 1985; Zand, 1972). The relationship of trust is developed when people fulfill one another's expectations (Robinson, 1996). Trust relation allows team members to show their goodwill, sympathy, and social relation to each other in day-to-day life (Rempel, Holmes, & Zanna, 1985). These previous research findings are in alignment with the findings of this study that proved the positive effect of trust on successful completion of project.

PROJECT SUCCESS THROUGH HUMAN CAPITAL

The critical analysis of the literature reviewed related to the project success depicts that the construction companies must realize human capital as one of the vital factors for gaining the competitive advantage and treat human resource as one of the scarce and vital resources necessary to make best use of other financial and physical resources. Moreover, human capital must be given equal importance by the companies as to economic capital to ensure project success. Hence, the companies must be involved in human development activities to improve the competency level of the team members. The findings provide the evidence that human capital is considered as the pool of knowledge that is mandatory for the superior performance and completion of project in time. Thus, sharing of knowledge, skills and experience among the team members is highly appreciated to ensure human capability building and for the successful completion and better performance of the project. The results acknowledge that the firms must put their hard efforts in developing efficient human capital policies and practices for the sake of

making the best use of their human resources to ensure successful completion of the project. These findings are supported by the results of previous research work as human capital practices prove to be useful in attaining relevant knowledge, skills and abilities through proper training program, interaction in team and social networking (Unger, Rauch, & Frese, 2011 cited Ackerman and Humphreys, 1990; Hunter, 1986). The result of the study proved that these practices not only develops human capital but ultimately results in successful completion in of project in time with a limited budget. Thus they could be considered as the critical success factors necessary for the project success that must be taken into consideration by the firms.

5. CONCLUSION AND RECOMMENDATION

The evidences provided by the review of the literature indicates that, the critical success factors identified were technological, project management and communication factors, necessary for the project success, moreover less emphasis was put on the role of human capital practices in project success. Hence, the main contribution of this study is to highlight the importance of effective human capital practices as the critical success factors, that proves to be essential for the project success. If the critical success factors are being identified by the project manager, he can make the best use of them to ensure the successful completion of the project.

It is emphasized throughout the study that projects are delivered by people, not techniques or methodologies. The only answer to the success of the project is to train and deploy project resources more effectively. In addition, cooperation among team members and coordinated teamwork must be ensured for the in time completion of inter related project activities. Finally, it is important to remember that trust relationship must be developed to make team members feel protected and supportive by the project leader, so that execution of task take place smoothly without any hesitation. Trust on the project manager by the team members of the project, is important as it permits the project members to keep focus on the project goals and tasks they are performing, thus avoiding the project failure.

All of the project team members possess a certain amount of talent and creativity and it is the responsibility of the project manager to make full use of it in favor of project success. It also suggests that project sponsors, project managers and all the members should work collectively to enhance the profitability of the firm. Moreover, in this piece of work the impact of human capital practices, such as training and development, teamwork and trust on the project success is being discovered and it is concluded that the development of relevant knowledge, skills and capabilities, enhancement of skills through teamwork and trust relation among team lead and team members are the critical success factors leading towards the success of the project in time.

RECOMMENDATIONS

On the basis of above literature review, the researcher can make following recommendations.

TRAINING AND DEVELOPMENT

1. The companies should offer specific training and development programs on all management levels to ensure competent human capital.
2. Training need assessment must be done to dig out the deprived need of the project team regarding desired knowledge, skills and abilities needed to perform the project tasks.

3. Training programs must be designed in such a way to improve team members require technical knowledge and professional skills.
4. Coaching and mentoring programs must be designed to provide on the job training to the new team members.

Teamwork

1. Group vision must be shared among the team members to ensure teamwork.
2. Group goals must be made clear to all team members
3. To ensure efficient teamwork all members must be made clear about the project requirements and outcomes.
4. For better teamwork it must be ensured that all team members share their knowledge, skills and experience and firm must provide healthy environment to the members where creative thinking and innovative ideas can take place.

TRUST

1. To build trust relationship among group all team members must be treated on fair basis
2. To enhance the level of trust group members must not be mislead regarding the project tasks and outcomes.
3. Knowledge sharing must take place.
4. Truth and honesty must be practiced to improve relationship of trust.

PROJECT SUCCESS

1. Human capital must be considered as one of the vital factor for gaining the competitive advantage.
2. Make the best use of human capital to ensure the proper management of other financial and physical resources.
3. The firms must take indulge itself in human development activities to improve the competency level of the team members.
4. Human capital must be considered as the pool of knowledge that is mandatory for the superior performance and completion of project in time.
5. Sharing of knowledge, skills and experience among the team members must be highly appreciated to ensure human capability building and for the successful completion and better performance of the project.
6. Firms must take actions in developing efficient human capital policies and practices for the sake of making the best use of their human resources to ensure successful completion of the project.

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