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A STRATEGIC FRAMEWORK TO DESIGN CONTEXT-SPECIFIC TRAININGS PROGRAMS TO IMPROVE PROJECT MANAGEMENT PERFORMANCE IN PAKISTAN

Dr. SADIA HANIF*
Faculty of Management Sciences (FMS), RIPHAH School of Leadership (RSL), RIPHAH International University, Islamabad. *Corresponding Author E-Mail: hanif.sadia@gmail.com

Dr. MEHWISH JABEEN
Department of Education, Government College University Faisalabad, Faisalabad.

Dr. SHAISTA NASIR
Air University School of Management, Air University, Islamabad.

Dr. NASIR HUSSAIN
CFO, Rockville Group, Islamabad, Pakistan.

Abstract

This study addresses the need for Strategic Framework to Design Context-Specific Trainings to improve project management competencies. We conduct interviews with project managers to build a typology of contextualizing factors that impact on project management training in Pakistan through grounded theory approach. Using these factors, we propose a strategic framework to design context-specific training programs based on information provided by organizational needs assessment. We demonstrate the utility of such a needs assessment in a poorly studied industry sector and socio-geographic setting, among public service project managers in Pakistan, considering the training needs of project managers and the organizational capability of their workplaces. This study demonstrates the importance of contextual training for the development of training programs that are responsive to organizational capacity. The results of this study are discussed in context with projectification, building organizational capability and improving project management training, particularly in developing countries to improve project manager's competencies.

Keywords: Knowledge transfer, Contextualized trainings, organizational needs, Project manager's competencies, Project Management training

Jel Classification: M0, M1

I. INTRODUCTION

The Asian Development Bank (ADB) project ratings assessment from (2006-2020) found that Pakistan had only one highly successful project and 32 successful projects, as well as 28 less successful projects and 29 unsuccessful projects. Pakistan received the highest grade across the board for less successful and failing initiatives, which is an alarming situation (Asian Development BanK, 2023). The low sustainability and declining effectiveness of projects in Pakistan is associated with shortfalls of achieving targets and non-achievement of institutional reforms. Further, the basic causes of declining effectiveness are inadequate planning, ineffective communication, insufficient budget allocation, poor risk management, stakeholder misalignment, bureaucratic organizational structure, and rigid culture (Hussain, Xuetong, & Maqbool, 2023). These causes can be

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managed and controlled through skill development, according to required project management competencies. In this regard leadership, time management, conflict management, negotiation, teamwork, political and cultural awareness are important competencies that are required for project success (Alvarenga, Branco, Guedes, Soares, & Silva, 2020). It is evident that organizations that have made significant investments in the training and growth of their project managers have emerged as champions in the field (Morris & Geraldi, 2011; Morris & Pinto, 2007).

However, as explained by the contingency theory the organizational structure and functions are heavily influenced by external/internal environment that limits the applications of generalised PM tools and applications (Segarra, 2022). Therefore, the need to adopt appropriate management methods for improved performance has increased due to a variety of social, cultural, political, managerial, or economic issues (Fregolente M. V., et al., 2022). Out of context project management training for human resource development has been highlighted as a critical barrier for the effective translation and adoption of project management approaches in developing countries (Liu, Shen, Li, & Shen, 2004; Long, Ogunlana, Quang, & Lam, 2004) .

In developing countries there is a pressing need to place context sensitive trainings with diverse and dynamic organization, industry sectorial, political, and sociocultural settings to provide enduring industry-relevant skill development. Such context sensitive trainings must not only consider differing technical domains, but also consider organizational culture, the learning behaviours of project managers (Hanif & Ahsan, 2020) ,and the types of explicit and implicit knowledge they habitually use (Hanif, Ahsan, & Wise, 2020). Since it is necessary that effective project management has a good understanding of the organizational system within which a project resides (Badiru, 2019), surely such contextual training would be necessary for relevant skill development in a training program.

Therefore, the main objective of the present research is.

To propose a strategic framework for designing context-sensitive training programs and enable the project managers to meet organizational needs to successfully completing projects.

The latest studies by Fregolente (2022) and Emiliano de Souza, Favoretto and Carvalho (2022), has many questions to be answered by the future researchers regarding required skill development according to project contexts (Fregolente M. V., et al., 2022; de Souza, Favoretto and Carvalho 2022). The present research is answering few of those questions indirectly i.e., how does the organizational context influence the barriers and facilitators in providing effective skill development trainings? Further, the gap identified by Emiliano de Souza, Favoretto and Carvalho (2022), regarding '*lack of a framework that could aid organizations to effectively implement knowledge management'*, filled through the proposed strategic framework. That framework is grounded by an organizational needs assessment to inform the contextual design of training programs. Therefore, through that

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framework the project managers will train according to organizational needs and project context, that will enable them to implement the required skills.

Based on above discussion, the present research is answering the following questions,

1. What are the contextual factors influencing the need for contextualized training programs.
2. How contextual factors can be incorporate in training designs.
3. How required project managers competencies will develop?

II. LITERATURE REVIEW

The complexity of modern project management creates an enormous challenge for competency development as well as the design and delivery of project management training programs (Kerzner, 2017). Irrespective of the maturity of the project management profession in different regions of the world, another major challenge for project management competency development is the variability and diversity of project management ecologies, which must be factored into any training framework (Badiru, 2019; Yanwen, 2012). Corporations clearly recognise the return on investment that is to be derived from need based project management training, also recognizing the value of developed competencies that are contextually adapted expressly for use in each corporate setting or industry sector (Ekrot, Kock , & Gemünden, 2016; Kerzner, 2017). The diversity in Project contexts and Project management activities is underpinned by Project management organizations. The differing human factors, technical requirements, organizational expectations, political constraints, industry and cultural settings and other environmental factors each contribute to exceptional complexity. Such diversity demands flexibility and adaptability as central pillars for effective project management (Badiru, 2019; Yanwen, 2012).

To be truly effective, project management training programs must be able to develop competencies in consideration of the extreme variability of the project management ecologies that may be encountered. Research discourses in project management and industry data clearly demonstrate major gaps and failures in the effectiveness and success of project management in developed and developing countries alike. Studies of project management performance in developing countries recognise systemic barriers for performance and high rates of project failure (Abbasi & Al-Mharmah, 2000; Faniran, Love, & Smith, 2000; Long, Ogunlana, Quang, & Lam, 2004). While project management training is universally accepted as being critical for building strong project management expertise (Guo & Zhang, 2022), industry data also shows that many firms in developing countries are considered underperformers with respect to training, prioritising management training at a low (Othayman, Mulyata, & Debrah, 2022; Wu & Kao, 2022).

Developed countries recognized the value of skill development and hence place a special focus on project management training to ensure successful project completion (Ika & Pinto, 2022) . The developed countries realised that to meet the complexity of projects,

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for resource efficiency, to ensure quality and innovation, for global competition and to adapt to changing environments, the necessary skills through trainings are required (Li L. , 2022). Moreover, the developed countries shifted to context-specific trainings with rising global competitiveness to incorporate industry-specific knowledge (Li, Borah, Kim, & Ji, 2022). The context specific project management training considers the unique challenges, industries, and requirements of each region. Context-specific training ensures that professionals are well-equipped to address the unique challenges and increasing the likelihood of successful project outcomes (Ika & Pinto, 2022; Li L. , 2022).

On the other hand, developing countries are not fully meeting global challenges through context-sensitive project management training (Hanif, 2023). This is because of resource constraints, institutional capacity building, skills gap, lack of integration, sustainability challenges and resistance to change (Onyango & Ondiek, 2021). The lack of monitoring and evaluation, limited collaboration and political instability also effects the training outcomes (Dwyer, Filieri, & Malley, 2023). One of the major barriers that impacts failure is to adaptation to local needs (westoby, et al., 2021). The trainers failed to adopt global project management frameworks to the specific challenges and realities of developing countries (Mehta & Sood, 2023; Thomas & Mengel, 2008). To survive in current global competitiveness, developing countries should have a holistic approach to project management capacity building (Silva, et al., 2022). This needs collaboration with international organizations, donor agencies, and educational institutions to design and implement effective and sustainable training programs (Amihan & Sanchez, 2023). Further, developing countries need to engage stakeholders, including government agencies, international organizations, educational institutions, and local communities to collectively make decisions that align with unique needs and challenges of their contexts (Sydelko, Espinosa, & Midgley, 2023; Vaio, Varriale, Lekakou, & Pozzol, 2023)

Ofori (2023) has reported in his book that the project management practices developed by developed countries face challenges in developing countries while adoption, because of lack of sufficient adaptation and customization. Further, he has suggested that developing countries need culturally relevant best practices (Ofori, 2023). The project performance also influenced by various cultural dimensions (Battistella, Bortolotti, Boscari, Nonino, & Palombi, 2023) that need to be incorporated while designing training programs. Project success and sustainability is influenced by poor stakeholder engagement, scope management, schedule, and resource management, this in turn negatively impact the employee health and hence project performance. Therefore, the project managers should have firm grasp on project knowledge areas according to the project context (Govindaras, Wern, Kaur, Haslin, & Ramasamy, 2023). Running a project is a multifunctional activity that needs to address defined goals while utilizing minimum resources and effective management tools even within uncertain environments (Andreev , Zinkina , & Petrovskaya, 2022). In this regard contextualised learning of project environments through experiments is effective (Jääskä, Lehtinen, Kujala, & Kauppila, 2022). Designing training programs addressing the project context needs a strategic approach.

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The study designed to explore the contextualised factors effecting the Project Management training in a specific region, and then compare the results with general training practices in use, to demonstrate that how the contextualised trainings can be useful. The recent literature supports the contextualization of learning practices and material (Jääskä, Lehtinen, Kujala, & Kauppila, 2022). In 2019, Colli et al, has suggested an expansion of the maturity model for digital transformations to address the demands of the global industrial agenda. 4.0. He has underlined the need for more individualised approaches to bring about context-specific improvements in companies (Colli, et al., 2019). Since, training strives to develop competencies, which are inherently context-bound, hence, generic models are not very useful. The individualized approach is beneficial in identifying organizational needs and to facilitate organizations with a contextualised - need-based training (Wilhelm, Forster, & Zimmermann, 2019). While acknowledging the significance of context, scholars are urging the development of context-specific theories and frameworks (Filatotchev, Ireland, & Stahl, 2021). The present study has conducted an empirical study to extract contextualised to propose a strategic framework to conduct contextualised Project Management Training.

III. MATERIALS AND METHODS

The study is using Grounded theory methodology. The data has collected, analysed, and interpreted using the Grounded Theory approach, in accordance with the published method of (Hanif, Ahsan, & Wise, 2020). Data collection tools used in the study were unstructured interviews of managers (trainees) and trainers, and direct observations of training sessions to observe the class structure, content, and available facilities, to validate information provided by interviewees about training methodologies. This study used a postmodern interviewing approach that limits the impact of interviewer in unstructured in-depth interviews. Multiple interviews to aggregate numerous participants' voices supported examination of shared and contrasting views and opinions. The interviewer considered sociocultural and professional elements in selecting a neutral interview setting and languages. The constant comparison method was used from the onset of data collection to distinguish themes and terms expressed by participants, further limiting any possible impact of the interviewer. Considering the recommendations of Cohen and Crabtree (2006), the interviewer predefined a clear plan, goal, and focus for the interviews to establish a scope for the discussion during the interview. All interviews were held and recorded in blended Urdu and English, which a common professional language is setting in Pakistan.

Interview participants were enlisted with their prior voluntary informed consent, and a commitment by the interviewer to de-identification of all information provided by participants. Throughout interviews, participants were reminded to centralise their discourse on project management training, training problems, and the role of training in project management and its failures. Interviews were progressed in three consecutive phases. Initially, participants were invited to explore project management failures and their underlying factors. Second, participants were invited to discuss the situation

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considering workplace culture at executive, managerial and operational levels. Third, participants were invited to think about existing training and learning behaviours. Interviews were also conducted with project management trainers from training organizations. The trainer participants were invited to discuss existing training methodologies, learning behaviours of individuals and absorptive capacity of organizations. Thus, all interviews were consistently framed around three pillars: training, learners, and their organizations. Participant enlistment and data collection was concluded when all emergent themes were saturated in accordance with Charmaz (2006). Code saturation occurred after 14 interviews, and to ensure mean saturation, sample number was expanded to 28 interviews in accordance with Hennink *et al.* (2017).

The participants of the study were chief administrators of organizational divisions, project managers/directors and trainers from fourteen public sector organizations in Pakistan. Except for the training organizations, participant organizations were included based on their size and function. They could all be described as large public service agencies, department or secretariats that are essential for the delivery of social services at a national level. Table 1 describes the demographics of participants in this study.

Table 1: Study population

Category	Participants	Gender	
		Male	Female
Executives	11	10	1
Managers	9	8	1
Trainers	8	4	4
Total	28	22	6

Collected qualitative data was analysed using MAXQDA code frequency analysis software (version 20.18.2, VERBI Software Sozialforschung GmbH, Berlin, Germany, 2018). Data analysis followed the constant comparison method for theme development. Themes were developed by reading sequential lines of transcripts and selecting line segments as open codes using the MAXQDA in-vivo coding function. Segments representing the same theme were aggregated leading to theme saturation, and new unique segments were coded to generate new themes. The open coding process was continued until all the themes were saturated and categories emerged (LaRossa, 2005). In total, 109 open codes were identified, and a data reduction strategy was adopted to review and aggregate repetitive themes. After data reduction, there were 90 remaining open codes. Axial coding was progressed by separating the underlying open codes into 10 categories, distinguishing those that had greater saturation and were more relevant to the research questions (Holton, 2007). Finally, selective coding was applied to establish the boundaries of the emerging theoretical account. The axial codes were structured under three core categories that were linked to develop the proposed framework.

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IV. RESULTS

The data collected from practitioner interviews is presented in Table 3 as a typology of project management factors impacting on training. Results of this needs assessment among public sector organizations in Pakistan demonstrate the value of needs assessments as contributors to contextual trainings. Furthermore, as discussed in literature review there is significance of socio-geographic differences in project management environments, and hence there is the need for greater recognition of socio-geographic differences in project management and training environments.

Table 2: Typology of project management factors impacting on training, based on interviews with practitioners in Pakistan[1].

Training	
Training Modalities:	
	Content-based training; Diversity within training groups; Lack of regular/progressive training; Outdated training; Training evaluation tools; Training duration; Training pedagogy; Class structure.
Training Materials:	
	Project lessons-learned repository.
Proposed Training Improvements:	
	Cascade training; Executive training; Experiential training; Outcome-based training; Purpose-based training; Technical skills segmentation; Training outcome evaluation.
Training Agency Factors:	
	Module development strategy; Organizational needs; Use of client needs assessment; Trainers' capabilities; Nomination of trainers.
Learner Competency	
Interpersonal Skills:	
	Cultural influence; Envy behaviour; Knowledge withholding behaviour; Time management; Communication style; Resistance to change; Self-motivation.
Technical Skills:	
	CSS system; Software learning capacity; Project planning; Project management technology; Project cost management; Project monitoring; Project stakeholder management; Project procurement; Project work value; PMBOK awareness; PMBOK acceptability; Project approval and appraisal process; Project documentation; Project risk management.
Learning Behaviour:	
	Executive learning behaviours; Trainees rational/inferences; Training value.
Organizational Competency	
Leadership:	
	Continuity of command; Experience-based mismatches; Lack of technical knowledge; Political influence; Project auditing influence; Project governance; Personal benefit seeking; Self-interest.
Resources:	
	Cost allocation.
Management:	
	Poor organizational culture; Absence of innovation/change; Competency based performance appraisal; Feasibility studies; Knowledge brain drain; Mismatched recruitment; Project directors' competency; Project manager autonomy; Project manager selection; Rough cost estimation; Workload.
Structure:	
	Government priority setting; Job rotation; Job security; Government rules; Relations; Vacant posts.

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The results of interview data presented in Table 3 allows the researchers to explore factors that impact on project management training in a socio-geographically distinct regions. Further, those factors clarified deficiencies in organizational settings. They also provide insight on the value of pre-training organizational needs assessments.

Interviewees identified additional areas of importance for their workplace environments, referring most often to factors relating to training quality. Managing class structure and the diversity of learners to maintain a cohesive cohort for training was identified as a challenge. As was the currency of training and the regularity with which it was provided. Also highlighted by participants was the need for training of organizational executives, the sequential development of skills and the reorientation of training to match the purpose of the organizations and their desired outcomes.

These factors are perhaps reflective of the state of development of public service culture in Pakistan, which have hierarchical organizational structures and a traditional authoritarian style of administration that influence organizational learning (Hanif, Ahsan, & Wise, 2020). Because of such a needs assessment for project management training, it would be possible to better tailor training programs, through knowledge transfer that has contextual relevance for the trainees and their workplaces.

Regarding Learner and Organizational Competency, it is understandable that technical project management factors were most reported as being important factors for management training. However strong attention was given by interviewees to poor organizational culture. Such cultural traits included envy behaviour; knowledge withholding behaviour; resistance to change; lack of technical knowledge, political influence, personal benefit seeking and self-interest. Knowledge of such organizational factors gained through a needs assessment would be essential for the development of a contextual knowledge transfer framework.

The technical skills that are typically developed through training systems such as PMBOK are well matched to address the technical factors identified by interviewees. However, established training systems are simply not geared to address the negative organizational management factors that were highlighted by interviewees. The data presented is drawn from public sector organizations in Pakistan, where administrative, regulatory, and political constraints can result in organizational leadership that lacks domain knowledge for decision making and lacks soft skills that are associated with transformational leadership.

Management failure and poor organizational culture extend far beyond the boundaries of organizations in developing countries. However, it is only through needs assessments that are specific to a workplace setting that it can be possible to deliver project management training that is responsive to the needs of organizations.

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V. DISCUSSION

There is increasing urgency to improve the efficacy of project management training through context sensitive training. Projectification embodies the increasing use of project management across a wide range of industries and across a diversity of management tasks that have traditionally been undertaken using more operational management approaches. However, project management failures continue to have significant impact and remain a focus for ongoing multidimensional investigations, for examples see (Khang & Moe, 2008; Lehmann O. F., 2016). Particularly in developing countries, implementation of project management is prone to failure (Eja & Ramegowda, 2020) and delays (Hussain, Zhu, Ali, Aslam, & Hussnain, 2018). This is attributed to weak competencies of project managers or their project management environment (Khattak & Mustafa, 2019). Despite adopting international project management certification standards, many project managers in developing countries still lack the required competencies to successfully manage projects lifecycles (Li, Sun, & Sun, 2020). The importance of this challenge cannot be overstated. UN funded sustainable development initiatives are implemented through project management, preferentially using local project managers. Therefore, remediation of project management deficiencies through improved project management training in developing countries has strong relevance for ongoing global sustainable development.

The literature review of this study illuminates the contextual nature of project management, strengthening our need to reconsider to whether existing project management training systems have the necessary insight or flexibility to address the needs of project managers. The review reveals an urgency of designing contextualise trainings according to project ecologies across different industries, socio-geographic regions, and organizational environments. As such, this study presents a typology of project management factors that impact on training requirements. Conceptualisation of these factors under the pillars of training, the capacity of the learners, and the capacity of their organizational environments, is drawn from the ‘trilogy challenges’ of Rwelamila and Purushottam (2012) for project management in Africa (Rwelamila & Purushottam, 2012). This choice of typology permits a holistic analysis of training needs, considering training modalities, training resources, organisational structure, leadership, management, resources, technical skills, interpersonal skills, and learning behaviours.

There exist a plethora of project management training paradigms and systems that are considered best practice, but in generalizing the needs of learners and their workplace environments, they fail to respond to complex and sometime cryptic success factors for project management (Grabher, 2004; Lehmann O. F., 2016) . The literature review of this study reveals a diversity of factors that directs contextual training program to be effective. We subsequently build on this finding by implementing a needs assessment, conducted through interviews with public sector project managers in Pakistan, to demonstrate how such a needs assessment can form a key element for the generation of a contextualised project management training.

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The interview results of this study demonstrate that in developing countries like Pakistan, there are also a diverse range of contextual factors that influence project management environments. Many of these factors reflect those reported internationally as summarised in our literature review, however others are uniquely differentiated. The interview results report common concern among practitioners regarding competency deficiencies, stemming not only from individual capacity, but also from organizational capacity. Overall, this finding highlights the need for caution when interpreting the results of socio-geographically delimited studies. This is a caution that has been overlooked by some studies that are comprised by US or European data and are assumed to have global applicability. At a deeper level, the state of development of organizational management in Pakistan has been useful in highlighting the importance of organizational contexts for project management. Much existing professional and scientific discourse focusses on training needs to address the skills gaps of individuals. However, the results of the present study show that there is a strong need to consider organizational capacity as well, to design training programs that are contextually suited for the project management capacity of organizations.

As a single example, in Pakistan and other developing countries, the term of public service agency leaders can be limited to a period of a few years. This is a regulatory measure to counter corruption that can be associated with office bearers who have held the same office for a long time. It can also result from political change at higher levels of government. As an inadvertent consequence, agencies can suffer from loss of organizational knowledge and breakage in management continuity. Such a rotation of organizational leadership can also increase the likelihood that leaders do not hold the requisite domain specific skills to lead their agency. This organizational culture has a strong impact on the function of agencies, including their capacity to undertake project management. It is essential to understand this context and to develop training programs that address contexts like this, to overcome current deficiencies in project management training.

The training programs must address the diverse training needs of project managers and their organizations to deliver context sensitive training that is cognizant of the variety of project ecologies and organizational environments that they operate in. The learning needs of project managers are contextual, and as such project management training must be contextual also. Over decades, many project management methodologies have proliferated. In addition to structured certified methodologies such as PMBOK, PRINCE2 and Six Sigma, there are other established approaches such as Waterfall, Critical Path Method, Critical Chain Project Management, Event Chain Methodology, Agile, Scrum, Kanban and Lean. These methodologies are centred on the technical or procedural requirements of the projects being managed, to achieve success, build efficiency, ensure quality, or reduce risk. To varying extents, these project management methodologies overlook the broader organizational environment through which project managers and their project management activities are governed. The responses of interviewees in this study reflected a common professional understanding that training systems often have a

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heavy bias towards a particular methodology (e.g., PMI PMBOK certification or PRINCE2 Practitioner training). Consequently, the organisational environments in which learners function receive little consideration in these project management system training programmes. Due to the projectification of management and its contemporary application at the level of the entire company, addressing the organisational context is becoming essential. Along with the training that goes along with these cutting-edge project management approaches, there must be systems in place to modify the training so that organisational settings can be considered.

We have demonstrated the effectiveness of a needs assessment in identifying the training requirements of unique workplace environments. Correspondingly, we propose that an organizational needs assessment is a key element of contextual knowledge transfer frameworks and must be conducted as a first phase in the implementation of a training program. Such an investigation would assist third party training providers to understand their client project-based organizations. A needs assessment would assist in-house training programs also, since central human resource service units that often implement training programs are not necessarily aware of the project management environment in their own organizations. Assessment of the organizational environment of a training client provides the necessary information to build organizational capacity in addition to resolving skills gaps of project managers. Figure 1 demonstrates how a contextual training programs may be based on an organizational needs assessment and an understanding of specific project management ecologies. The framework has three major components that represent training methodologies, the individual and organizational competencies they develop, and the organizational context. Cutting across each of these components is a needs assessment of the client organization to understand the project management context.

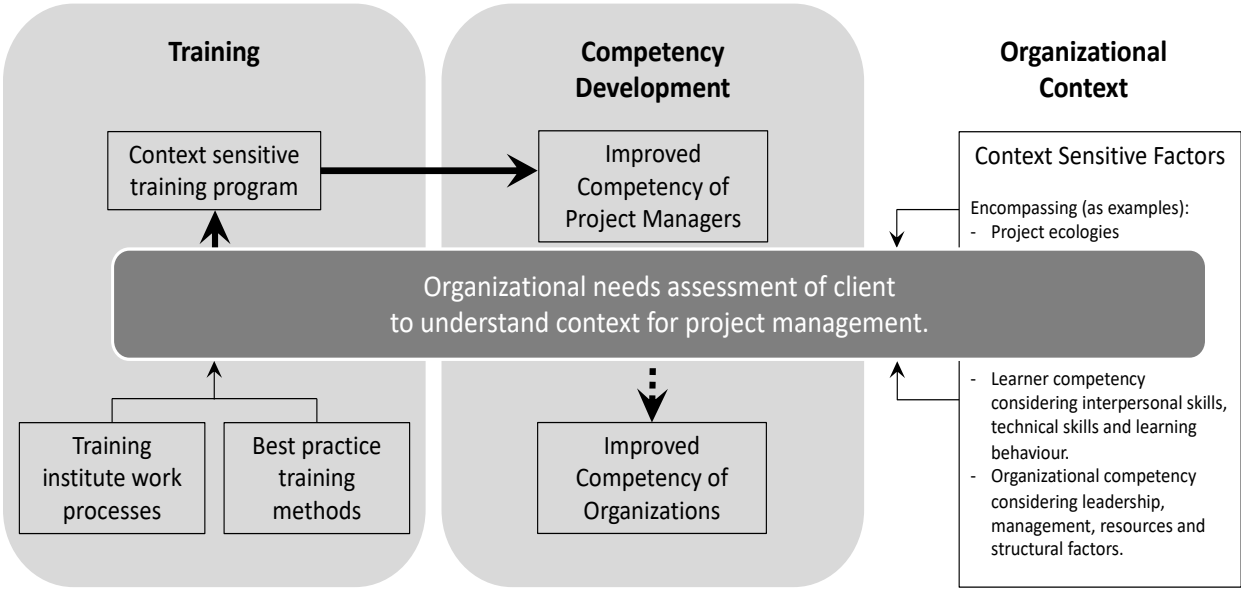

Figure: Strategic Framework to Design Context-Specific Trainings

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Figure Description: A Strategic Framework to Design Context-Specific Trainings to improve project management training programs. An organizational needs assessment is required to understand the needs of client organizations and their project management contexts, to assist the delivery of a context sensitive training program that improves the capacity of project managers and the organizations they operate in.

In the Training component of Figure, the training agency's work processes and best practice training methods are represented as building blocks for contextualization through an organizational needs assessment. Together these inputs define a context sensitive training program that is better suited to address a client organization's needs. The Competency Development component of Figure represents the value of a context sensitive training program, firstly in developing the competencies of project managers through recognition of their learning behaviours, needs, and project management problems, and secondly for improving the competency of their organizational environment. The Organizational Context component of Figure represents the diverse project ecologies and organizational environments that must be addressed by the needs assessment. Superimposed transversely across each of these components is the needs assessment that informs the whole contextual knowledge transfer framework.

As an example of how this schema functions, our needs assessment revealed that public sector organizations in Pakistan that were characterized by their own project managers as having weak organizational competency for project management because of traditional organizational structures that have strong resistance to change, overseen by executives lacking technical literacy and soft skills. Such knowledge at an organizational level would be informative to construct a training program that might specifically address domain knowledge gaps and soft skills deficiencies of leaders, in addition to the technical knowledge gaps of project managers. This in turn might create the institutional space for the new learnings of project managers to be adopted or supported vertically throughout the hierarchy of the client organization.

When the project managers have the freedom to apply their knowledge, their competency is empowered, and they are better able to resolve project management challenges. In addition to orienting training agencies towards organisational development, implementation of the proposed strategic framework would help to inform training agencies to continuously improve their training products and services in line with industry needs. In doing so, this framework would contribute to a continuous improvement process between training providers and their client project management organizations. While the setting for this discussion has been framed around external training agencies and their client organizations, the proposed framework is equally applicable to in-house training environments whereby a project management office may take on the role of training provider.

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VI. CONCLUSIONS

As for any other industry, it is essential that training programs for project management address the current needs and behaviours of project managers and their organizations. Historically, those needs have centred around building technical skills of project managers for the carriage of discrete project work. Such technically oriented workflows still dominate major project management systems and their associated training programs. With projectification and the growing use of project management at a whole of organization level, there is an urgent need for project management training to evolve to address the context of project management organizations.

The results of the literature review of this study demonstrate the complexity of project ecologies that project managers must navigate, and that impact on project management training needs. Using the results of the data analysis, we have constructed a typology of contextual factors that highlight the need for training programs to address the context of organizational competency. Project managers in public service organizations of Pakistan are uniquely positioned to inform about this context, as their workplace environments can lack the organizational competencies required for efficient project management. Through interviews with those project managers, we construct a typology of factors that impact on project management training in Pakistan. In doing so we identify impactors that are reflected globally, and additional factors that are of heightened importance for organizations with lower organizational competency in project management. This emphasises the importance of recognising that socio-geographic differences exist and that the results of studies conducted in the USA and European nations may not be directly applicable in other regions. Additionally, these interviews demonstrate that an organizational needs assessment is a useful tool to identify the specific training needs of organizations.

These findings are used to propose a contextualised trainings that addresses the complexity of project ecologies and identifies the organizational capacity building needs of client project management organizations. The proposed framework of this study addresses the need for contextualised training through an organizational needs assessment that informs training program design. Its contribution is most relevant for organizational competency development, and adoption of project management paradigms at an organizational level. The proposed framework functions as a roadmap for training agencies to identify and address capacity development needs at both individual and organizational levels. The suggested framework would act as a vehicle for ongoing improvement among training agencies as a corollary of the transfer of contextual skills from training organisations to project management firms. Training organisations would adapt their products and services in response to industry change as they become more knowledgeable about changing industry needs.

In response to projectification and the expanding adoption and integration of the project management approach across organisational roles and structures, this is large exploratory research for building the contextualised training for project management. This study helps to recognise the need for contextualised training and demonstrate the value

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of organizational needs assessments to do so. However, further research is required to understand how training systems must change, to move from their current approach of student-centred delivery to an approach aimed at organizational capacity building. Such future research is an important response to the evolution of project management and the projectification of organizational environments. It would also help to bring existing best practice training systems up to date with the cutting-edge use of project management today.

VII. LIMITATIONS

Limitations of this study include the highly contextualised data collection i.e., from only one cultural context Pakistan and further selection of public sector Project Management. However, the advantage of selecting specific contexts were helpful in proposing context-sensitive framework for training. On the other hand, the disadvantage is that the proposed strategic framework based on the highly contextualised data may become complicated, time consuming, or costly. However, the benefits from the implementation of such a context-sensitive framework will overcome the expected project cost overrun and schedule delays, as well as will add to value.

VIII. FUTURE RESEARCH RECOMMENDATIONS

Based on the need for contextualised training in project management, it is highly recommended to test the applicability and efficiency of various available advance training methods considering the multiple knowledge areas and processes of project management in different contexts. It will help the policy makers to identify the relevant methodologies to enhance the required project competencies.

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