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# Employer Branding: How Perception of Social Media Use and Prior Work Experience Impacts Employer Attractiveness for Prospective Employees

Saad Shahid\* Ibrahim Ayyaz\*\*

## Abstract

*The current study aims to extend Sivertzen et al. (2013)'s proposed model to garner insights pertaining to employer branding, social media use, work experience and intention to apply for prospective applicants within the Pakistani context and, creating a more cohesive view of employer branding for academics and practitioners. Questionnaire data were collected from 220 MBA students of varying levels of professional experience from Pakistani universities about their perceptions of potential employers and their intention to apply. Data analysis carried through Structural Equation Modeling (SEM) revealed that employer attractiveness dimensions such as "Economic Value" and "Development Value" were significantly linked to a company's "Corporate Reputation" which in turn was linked to "Intention to Apply"; additionally, Social media Use was identified as a moderator for the relationship between Corporate Reputation and Intention to Apply. These results highlight the impact perceived functional social and psychological benefits have on the interaction between individuals and organizations and, the influence of social media during the recruitment process. From a managerial standpoint, the results underscore the importance of understanding the needs of the workforce and, curating an effective corporate reputation for recruitment purposes.*

**Keywords:** Employer branding; employer attractiveness; corporate reputation; social media, work experience, intention to apply.

**JEL Classification:** M1, M3, M5

## 1. Introduction

A sustained competitive advantage is paramount in any organization's economic profitability and survival in an increasingly dynamic competitive environment. In light of rapid technological and economic developments, the role of Human Resources as a key

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contributor to organizational success has become more apparent. The ability to effectively access and manage human capital as an important resource is crucial for a sustained competitive advantage (Delery & Roumpi, 2017). Agostini et al. (2017) elaborate on the concept of human capital as the amalgamation of employee capabilities that an organization has access to address its business objectives. As the contest for attracting and retaining talented individuals with the required capabilities continues to escalate (Berthon et al., 2005), employers have become more aware of the importance of employer brands as a means of being seen as an 'employer of choice' by employees and prospective recruits.

As Bellou et al. (2015) highlight, job seekers tend to behave similarly to consumers i.e., they are constantly searching for brands that meet their preferences. Employer brands and reputations are reflective of the value and support organizations are able to provide to current and potential employees. The more proficient an organization is in meeting the value expectations of employees, the greater is the willingness of the workforce to reciprocate in the form of engagement and organizational performance (Arasanmi & Krishna, 2019). As such, the importance of branding and organizational corporate reputation as employers has gained salience in the labor market, with organizations realizing that establishing unique employer brands is a strategic requisite for a continued competitive advantage by means of managing and retaining a competent workforce. However, the subjective nature of these constructs makes them context-sensitive, hence, understanding the applicability of employer attractiveness dimensions presented by Berthon et al. (2005) across various cultures and contexts and their subsequent correlation to "corporate reputation and" an applicant's intention to join has major academic and practical scope.

Social media has become one of the key recruitment channels for organizations. By providing the means of sharing content and information, social media platforms have transformed the way people collaborate and communicate (Derks & Bakker, 2012). The wide span of visibility that social media affords organizations to establish their brand image for current and future employees makes it a key strategic human resource management tool (Kashive et al., 2020). Organizations can use this visibility to exhibit their unique employer value proposition as a way of establishing their attractiveness as an organization.

While Berthon et al. (2005) employer attractiveness (EmpAt) scale has served as the foundation for literature relating to employer branding and employer attractiveness, studies by Sivertzen et al. (2013), Kissel and Büttgen (2015); Babikova and Bucek (2019) and Tanwar and Kumar (2019) have found that the application of the scale varies across cultures. In recognition of this, the current study looks to add to the literature by studying it in a different context and invoking more generalized insights. Furthermore, prior research on employer branding has been limited by studying homogeneous groups like university students (Berthon et al., 2005; Sivertzen et al., 2013; Kissel & Büttgen, 2015; Babikova & Bucek, 2019).

While studies like Hadi et al. (2016), Hadi and Ahmed (2018), Roy (2008 et al.,) and Tanwar and Kumar (2019) have studied employer branding in contexts similar to that of Pakistan in different forms, the scope still exists to study the phenomenon in more detail. With Pakistan poised as a growing economy (Iravani, 2011), the war for talent is inevitable and companies will need an extensive understanding of what employees in Pakistan expect from their employers or potentially lose out on accessing a rapidly shrinking pool of high-quality talent.

By introducing prior work experience as a variable, the study aims to make additions to the literature by studying groups that are more heterogeneous. In fact, literature on the topic has actively promoted the study of factors such as gender and work experience to gain more generalizable insights. To bridge this research gap, the present research attempts to expand upon prior studies carried out by Sivertzen et al. (2013) and Babikova and Bucek (2019) and study their purposed model within the Pakistani context. The objectives of this study are as follows: 1) put forth a cohesive view of employer branding that addresses the persistent split between academics and practitioners (Theurer et al., 2018); 2) add to existing literature that has studied employer branding in contexts similar to that of Pakistan (Hadi et al., 2016; Hadi & Ahmed, 2018; Tanwar & Kumar, 2019) and; 3) identify the impact social media and work experience have on the relationship between corporate reputation and intention to apply.

Table 1  
*Literature Table*

<b>Author (Year)</b>	<b>Research Objective</b>	<b>Study Type</b>	<b>Methodology</b>	<b>Findings</b>	<b>Gap and Limitations</b>
Arasanmi and Krishna (2019)	“Analyze the correlation between the organizational support attribute of employer branding and employer retention.”	Quantitative analysis	“Cross sectional design, online survey, 134 research participants recruited from a local government council in New Zealand.”	“Perceived organizational support (POS) as a branding strategy influences employee retention. Organizational support significantly impacts organizational commitment (OC) as a predictor of employee retention. Organizational commitment mediates the relationship between organizational support and employee retention.”	Focused on a single aspect of employer branding. Studies only address attraction of new talent and does not address retention.

*Table to be continued*



Kashive et al. (2020)	“Studying the impact social platforms like Glassdoor have on the ability of an organization to establish an attractive employer brand.”	Thematic analysis	“Analysis of 1,243 reviews from online crowdsourced employer branding platform Glassdoor for top-rated employers across FMCG, pharma, IT, retail sectors. SAS visual analytical was used to carry out text and sentimental analysis.”	“Ten themes of employer value propositions generated, in line with Berthon (2005) employer branding dimensions (interest, development, social and economic value). Additional themes identified include management, work life and branding value.”	The study only confirms that social media platforms can be used as a channel to promote employer brands but does not present any insights about how employer value propositions can be generated
Hadi and Ahmed (2018)	“Exploring how employer branding dimensions interact with employee retention.”	Quantitative analysis	“Sample for questionnaire included 204 teachers and administrative staff members from branded institutes in Islamabad Pakistan. Analysis carried out through multiple regression analysis.”	“Out of the dimensions of employer brands, only development value was found to influence employee retention.”	Narrow sample consisting of employees from a limited number of institutes Lack of generalizability due to homogeneous sample of candidates Focused only on retention and not on attracting new talent.
Dabirian et al. (2019)	“Identification of factors that impact the desirability of IT firms amongst IT professionals as a means to attract and retain a talented workforce.”	Thematic analysis	“Analysis of 15,000 Glassdoor reviews for the top ten best rated and bottom three rated firms. Content of reviews analyzed by the artificial intelligence engine Watson as means to identify relevant brand propositions.”	“Extension of previous academic understanding on the effects various employer brand propositions have on shaping an organization's brand image in the mind of current and former employees.”	Limited focus on attracting talent in the future Focused narrowly on the IT sector leading to reduced generalizability

*Table to be continued*

Ahmad et al. (2019)	“Analyzing how organization type and gender influence the attraction of new employees and the retention of current human resources.”	Quantitative analysis	“Personally, administered questionnaires to a sample of 100 banking professionals from private and public banks in India. Analysis carried out via an exploratory factor analysis, followed by Independent sample t-Test.”	“Results showed no significant influence of gender on either employee attraction or employee retention. There was also no discernable impact of organization type on employee attraction, but, a significant influence was seen to exist on employee retention.”	Limited sample size and narrow industry focus Limited focus on the constituents of employer branding
Babikova and Bucek (2019)	“Replication of Sivertzen et al. (2013)'s model used to investigate constituents of employer branding strategies, and verification of the adequacy of existing view of relevant elements as well as the influence of social media.”	Quantitative analysis	“Electronic questionnaire administered to 337 computer science and 290 economic students from universities in Czech Republic. Analysis carried out using structural equation modeling.”	“Multiple elements of employer attractiveness were found to have a correlation with corporation reputation which was further found to be correlated to intention to apply. Outcomes were found to vary between industries highlighting the importance of relative elements.”	Potential further relative elements such as work experience and other heterogeneous groups of respondents to further improve the generalizability of the replicated model that has been extended in the study
Tanwar and Kumar (2019)	“Exploration of the correlation between constituents of employer brand and employer of choice (EOC). Additional analysis of the influence of person-organization fit in mediating the relation between dimensions of employer brand and EOC status, and how social media moderates the link between EOC status and the person organization fit.”	Quantitative analysis	“The sample included 386 second year MBA students from the top ranked business schools in India's National Capital region actively searching for jobs. Analysis was carried out through structural equation modeling on data collected via a questionnaire.”	“The person-organization fit was found to have a significant mediating role showing that to become EOC, there is a need for person-organization fit to link with employer brand dimensions. The moderation analysis further highlighted how important social media is to become a EOC regardless of organization fit.”	Limited generalizability to the homogeneous nature of the sample potential for incorporation of work experience as a variable and existing employee as part of the sample

## 2. Literature Review

### 2.1 *Intention to Apply*

An increasing shortage of talent across various markets globally has necessitated organizations to develop a greater understanding of the importance of the many aspects that impact applicants' intentions to apply for available job vacancies (Gomes & Neves, 2011). A job prospect's intention to apply is defined as the desire for applying, visiting a company's website, participating in activities beyond the early recruitment stages such as second interviews, or providing any other indication of intending to enter or remain part of the pool of applicants without a concrete decision about a job choice (Chapman et al., 2005). Gomes and Neves (2019) further expand on this, proposing that the intention of an applicant to apply for an available job vacancy can serve as a proximal and rational determinant of actually applying. The theoretical foundations for the construct can be found in the "theory of reasoned action" and "theory of planned behavior" (Adams & de Kock, 2015; Gomes & Neves, 2019). Fishbein and Ajzen (1975)'s "theory of reasoned action" has been presented in recruitment literature as a sequence of rational cognitive processes, such that the application decisions come as a direct consequence of job application intentions which in turn stem from an applicant's evaluations about the job and the company overall (Gomes & Neves, 2019; Van Hooft et al., 2006). Gomes and Neves (2019) link this to their proposed behavioral perspective; stating that the key to understanding any behavior (such as application decisions), is to develop in-depth assessment on the attitudes, beliefs and resulting intentions (intention to apply) as the determinants of said behavior. The "theory of planned behavior", extends this view, stating that the behaviors of individuals stem from logical, rational evaluation of the available information and the intentions formed as a result. It differentiates from the theory of reasoned action by considering that behavior may not always be voluntary, making the perceived control individuals have over their behaviors an important consideration (Ajzen, 1991, 2020). Adams and de Kock (2015) frame this theory within the context of recruitment literature as a multidimensional framework that describes attitude-behavior relationships that influence applicants in their decisions of engaging in and completing the application process.

### 2.2 *Employer Branding and Intention to Apply*

The rapidly growing demand for competent and qualified employees reflects today's dynamic, knowledge-driven business environment. The importance of human resources to the modern organization has its roots in the 'resource-based view' theory. This view presents the idea that the performance of organizations differs based on how an organization leverages unique, inimitable resources to establish a distinct advantage; these resources include both physical capital as well as intangible assets such as brand names and organizational capabilities (Barney, 1991; Lockett et al., 2009).

According to Jiang and Iles (2011), employer brands aid organizations vying for talent by enhancing engagement, recruitment and retention in a way that creates positive perceptions of the value the organization has as an employer amongst employees, both prospective and current. Broadly speaking, the intersection of human resource management with the principles of branding and marketing is the basis of employer branding (Almıaçık & Almıaçık, 2012; Babikova & Bucek, 2019; Theurer et al., 2018). The origins of employer branding can be traced back to Ambler and Barrow (1996)'s definition for the term as being "the package of functional, economic and psychological benefits provided by employment, and identified with the employing company". Alternatively, it has also been defined as an organization's identity as an employer incorporating its values, policies and activities as a way of differentiating itself to attract, motivate and, retain current and potential employees (Backhaus & Tikoo, 2004; Dell & Conference Board, 2001).

Employer branding lacks a unified interpretation of the dimensions and application of the concept amongst academics and practitioners (Theurer et al., 2018). Biswas and Suar (2014) shine a light on how the perspectives on employer branding vary. While most academics remain firmly in realm of concept and results focusing on the employer image and reputational aspect (Backhaus & Tikoo, 2004; Cable & Turban, 2001; Wilden et al., 2010), practitioners prefer to study the attributes that make organizations more attractive and how brand image can be used to enhance this attraction for the recruitment and retention of talent (Berthon et al., 2005; Lievens & Highhouse, 2003; Sivertzen et al., 2013). Findings from both perspectives provide empirical evidence that employer brands help improve the awareness, knowledge and, familiarity of applicants for an organization and simultaneously serve as a signal for its value proposition as an employer to attract employees based on their functional and symbolic needs from their place of work.

Employer attractiveness can be defined as "the benefits potential applicants' envision receiving as a result of being a part of any organization and is deeply intertwined with the employer brand concept" (Berthon et al., 2005). Organizational attractiveness is based on the belief systems and experiences of applicants and current employees and their influence on the interpretations and associations of an employer's brand attributes (Saini et al., 2013). As noted by Reis et al. (2017), a jobseeker's positive beliefs about an organization influence the attraction they feel and their readiness to pursue a position in said organization. Hence it is clear that the relevance of employer attractiveness is based on its influence on job application decisions (Gomes & Neves, 2011); employee retention (Helm, 2013) and; applicant willingness to seek out more information about employers and incorporate it into any forthcoming choices (Cable & Turban, 2001). This in turn highlights the importance of understanding the attributes that applicants find most important so that effective branding initiatives can be implemented (Reis et al., 2017).

The operationalization of employer attractiveness is carried out through the combined attributes that potential applicants consider when making application decisions; something that is impacted by interpretations of employer attributes and the degree of familiarity with employer brand image (Edwards, 2010). In what has been termed elemental perspective by Lievens and Slaughter (2016), the associations formed about an employer's attributes require extensive cognitive processing and are reflective of the perceived image of the company. The categorization of these attributes has been subject to plethora of approaches but the most well-known and longstanding of these has been the alignment of attributes being either functional, symbolic or experiential (Keller, 1993). This is further solidified by Ambler and Barrow's original definition of employer branding as amalgamation of economic, social and functional benefits that an employer can offer.

One framework that has been introduced to the literature is the integration of instrumental (compensation, work conditions, advancement opportunities) and symbolic (culture, innovation, prestige) attributes (Lievens & Highhouse, 2003). Srivastava and Bhatnagar (2010) identified eight attributes that encompass organizational offerings (international exposure, career advancement, developmental support) and descriptors (flexibility, fairness, credibility, ethical, and positive imagery). The attributes have also been classified as either hard or soft in other research; hard attributes cover formalized, objective, enforceable terms while soft factors are less observable, subjective and, lack a clear definition. In general, literature has found that symbolic, intangible attributes and benefits have had more influence on how an employer is perceived and thus how attractive they are in the eyes of prospective talent (Lievens & Slaughter, 2016).

Amongst the various frameworks proposed to capture the real picture of employer attractiveness, Berthon et al. (2005)'s employer attractiveness scale (EmpAt) has been most frequently used in prior literature (Alniaçık & Alniaçık, 2012; Arachchige & Robertson, 2013; Babikova & Bucek, 2019; Sivertzen et al., 2013). Using Ambler and Barrow (1996)'s original study as a foundation, the scale comprises 5 attributes including: "interest value", "social value", "economic value", "application value" and, "development value".

Contrary to employer attractiveness, a brand equity-based approach that has been adopted by most practitioners; corporate reputation aligns with the alternate perspective heralded by academics on employer branding as being value neutral and used to create a distinct identity of the organization in terms of various brand attributes (Backhaus, 2016; Biswas & Suar, 2014; Theurer et al., 2018). In fact, some literature has chosen to use the term corporate reputation interchangeably with employer brand (Cable & Turban, 2003; Mosley, 2014; Tkalac Verčič, 2018), indicating how closely the two concepts are intertwined with one another. Corporate reputation can be defined as the attitudes of stakeholders towards an organization, based on the image projected as a result of organizational attributes (Highhouse et al., 2009; Wartick, 2002). Additionally, it is the collection of characteristics established on the

foundations of past social engagements and future prospects serving an indispensable intangible asset that mitigates information asymmetry for stakeholders. (Dowling & Moran, 2012; Schnietz & Epstein, 2005; Weigelt & Camerer, 1988). Cable and Turban (2003) apply the concept of corporate reputation to the employment and recruitment context; drawing on the principles of signaling theory to state that the more positive an organization's reputation, the higher the applicants' willingness to be part of the organization and the amount of prestige they expect from membership in the organization.

The perceptions about an organization's reputation and its subsequent attractiveness to prospective applicants have been empirically linked to corporate reputation (Collins, 2007; Collins & Han, 2004). This further extends to the social identity theory; because of the prevalence of information asymmetry between applicants and organizations, reputation may serve as an important tool to reinforce the personal value systems and self-image for prospective employees and lead to positive evaluations for the organization (Story et al., 2016). The congruence of an applicant's personal values with those perceived about an organization communicated through its reputation also has a significant positive impact on how attractive an organization is based on their perceived fit to the company and subsequently leads to an increase in the willingness of applicants to join any organization (Xie et al., 2015).

### **2.3 *Employer Attractiveness and Corporate Reputation***

Literature shows that while the correlation between employer attractiveness and corporate reputation is clear, the interaction between these constructs is sensitive across various national, generational and industry-specific contexts, leading to inconsistent statistical evidence. While some like Sivertzen et al. (2013), Tkalac-Verčič (2018) and, Babikova and Bucek (2019) report that change in context may require modification to the original employer attractiveness scale; others like Liu (2018) and Hadi and Ahmed (2018) did not find the need to modify the original scale.

In light of this varying evidence, it is important to define the different constituents of employer attractiveness for this study. Berthon et al. (2005) defined each dimension as follows: interest value refers to "employee perceptions about creativity and excitement in the work environment and novelty of the work practices and, how the employer is able to leverage the ingenuity and resourcefulness of its workforce to become more innovative"; social value refers to "employee perceptions about the ability of an employer to provide a fun, happy environment which actively nurtures strong social connections and interpersonal relationships and encourages an agreeable team atmosphere"; economic value refers to "employee perceptions that the combination of monetary (salary, compensation packages) and non-monetary (job security, promotion prospects) provided by the employer are not only above average but also align with the expectations and needs of the applicants"; development value refers to "employee perceptions about aspects such as recognition, self-efficacy,

career-enhancement and a foundation for future employment opportunities that they expect an employer will be able to provide”; application value refers to “employee perceptions about the opportunities made available by an employer for application of personal knowledge to add value to the organization and provide guidance to others in customer-oriented and altruistic environs” (Berthon et al., 2005). Literature such as Sivertzen et al. (2013), Babikova and Bucek (2019) Liu (2018) and, Hadi and Ahmed (2018) and, Tanwar and Kumar (2019) have presented conflicting evidence regarding corporate reputation’s relationship with the dimensions of employer attractiveness. This presents an opportunity to study these relations in a different context leading to the following hypotheses being proposed.

*H1:* Applicants’ interest value is positively related to employer corporate reputation.

*H2:* Applicants’ social value is positively related to employer corporate reputation.

*H3:* Applicants’ economic value is positively related to employer corporate reputation.

*H4:* Applicants’ development value is positively related to employer corporate reputation.

*H5:* Applicants’ application value is positively related to employer corporate reputation.

There exists a myriad of evidence suggesting the reputation of a firm has a major role in governing application intentions, emerging as a source that generates applicants’ preliminary awareness of a firm as an employer (Cable & Turban, 2001). It is hence understandable that jobseekers consider corporate reputation as an accurate reflection of a company characteristics and attributes that subsequently influence their application intentions (Cable & Turban, 2003; Edwards, 2010). Walter et al. (2013), Zhu et al. (2014) and Liu (2018) all demonstrate that positive opinions about companies contribute to employers’ ability to create a psychological contract with applicants, subsequently impacting their intentions. Based on the literature, there seems to be a general agreement that corporate reputation and intention to apply are positively linked. However, there is still value in studying the relationship in a different context such as Pakistan to add further credence to existing evidence. As such, the study proposes the following hypothesis:

*H6:* Employer corporate reputation has a positive relation with an applicants’ intention to apply.

## **2.4 Social media Use**

Organizations have long realized the importance of online channels as a means of recruitment (Cappelli, 2001). One such channel that has slowly been gaining popularity in this regard is social media; digital platforms that enable widespread connectivity, generation and

distribution of content and, a means of engagement and communication (McFarland & Ployhart, 2015). To attract prospective employees and foster application intentions, organizations can leverage the social media to carefully curate and effectively communicate their corporate identity and stay connected to potential applicants (Smith & Kidder, 2010). Literature provides evidence of social media's critical role in influencing the job pursuit intentions at a particular organization (Franca & Pahor, 2012; Wei et al., 2016). Recent studies reveal that employers use social media as a crucial means of communicating information about vacancies and engaging with potential candidates (Caers & Castelyns, 2010). Further analysis of the literature shows social media has also taken up an influential role of the corporate reputation management for organizations to engage with potential applicants in a bid to improve the attitudes and associations they hold through a variety of content (Dijkmans et al., 2015; Walker et al., 2011). According to Jones et al. (2009), social media provides a mechanism to effectively monitor, control and engage with various stakeholders with the ultimate goal of acquiring the positive position in the mind of prospective employees. In light of this, the following hypothesis is proposed:

*H7: Applicants' perception of an employer's use of social media is positively related to the employer's corporate reputation.*

The increased use of social media has opened up a multitude of channels where applicants can get information about potential employers (Dreher, 2014). Literature provides empirical evidence that the active social media use for job advertisements influences applicant intention to apply by enhancing corporate reputation (Chu et al., 2013), that the means and channels that companies use to communicate their corporate reputation, through corporate social responsibility activities (Story et al., 2016); recruitment advertisements (Baum & Kabst, 2014); use of social media (Kissel & Büttgen, 2015); word of mouth (Hoppe, 2019) and; career websites (Williamson et al., 2010) have a strong correlation in enhancing corporate reputation's impact on the intentions of high quality talent to apply. Dutta (2014) and Tanwar and Kumar (2019) provide quantifiable evidence that the mix of social media use will influence how person-organization fit is communicated through corporate reputation and, how applicants interact with the company's image and form their intentions to apply as a result. This shows that there is further value in studying social media's ability to enhance the relationship between "corporate reputation" and "intention to apply" leading to the proposal of the following hypothesis:

*H8: Applicants' perception of employer's use of social media moderates the relationship between "corporate reputation and" intention to apply.*



## 2.5 *Work Experience*

One factor that is significantly underrepresented in employer branding and recruitment literature is prior work experience. As Yockey (2019) notes, recruitment literature encompasses a wide variety of recruitment activities and a number of different contexts such as from different cultures, generations and industries to ensure that the best talent can be recruited (Rampl, 2014). A glaring limitation of this literature is the fact that it mostly studies largely homogeneous groups (Berthon et al., 2005; Klimkiewicz & Oltra, 2017; Sivertzen et al., 2013; Tanwar & Kumar, 2019), mostly final year university students. In light of this, there have been attempts to expand the research how employer branding and its influence on recruitment outcomes may vary across more heterogeneous groups, based on gender (Alniaçık & Alniaçık, 2012); educational background (Babikova & Bucek, 2019), generation (Reis & Braga, 2016) and, national cultures (Alniaçık et al., 2014). In a similar vein, there have been numerous calls for the incorporation of work experience into the literature as well (Breaugh, 2013; Fisher et al., 2017).

The incorporation of work experience as a factor in employer branding is backed theoretically by Aaker (1996)'s observation: in the marketing context, consumers who are relatively inexperienced have difficulty in comparing and contrasting products at a cognitive level. Such consumers are hence more likely to be dependent on their perceptions of the brand to guide them in the evaluation process (Keller, 1993). Similarly, in the recruitment context, job seekers with limited work experience may find it more difficult than experienced workers to evaluate the attributes of an employer and hence may lean on the organization's corporate reputation to make career decisions. Walker et al. (2008) and Swider et al. (2015) found that work experience has a limited influence on the relationship between employer brand and application intention. Meanwhile Arachchige and Robertson (2013) found that perceptions about employers based on the value communicated via corporate reputation differed significantly between experienced MBAs and those with little to no experience. Other studies, like Yockey (2019), found that there was no impact of work experience on the interpretation of an organization's recruitment advertisements or the attraction applicants may feel for it. The inconsistent nature of these findings highlights the gap in the literature that this study aims to address by proposing the following hypothesis:

*H9: Prior work experience moderates the relationship between perceived "corporate reputation and" intention to apply.*

## 2.6 Theoretical Framework

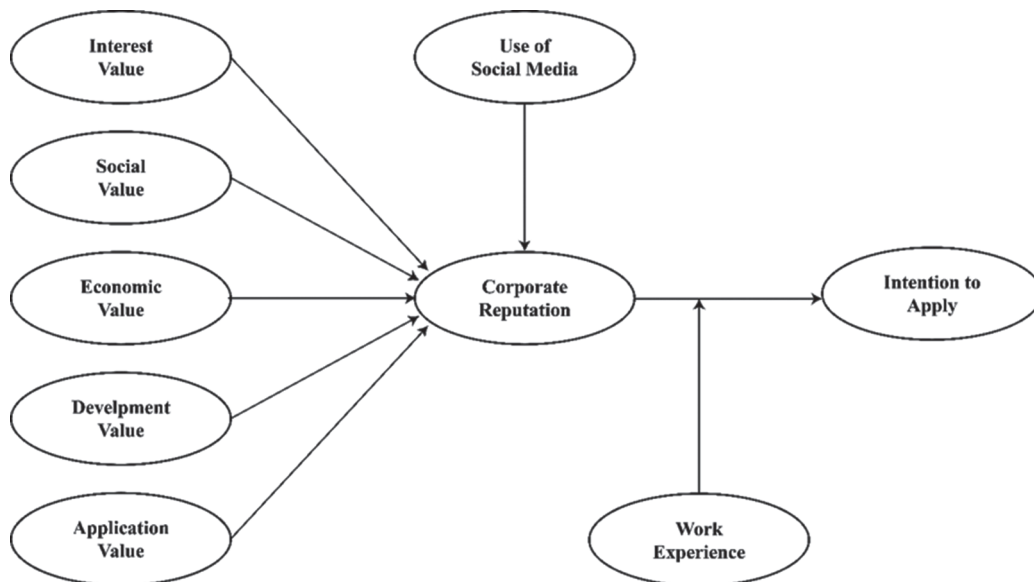


Figure 1: Theoretical Framework

## 3. Methodology

### 3.1 Research Design

An empirical research design based on a quantitative approach was used for the current study which allowed for a structured and numerical presentation of the data collected (Goertzen, 2017). In line with recommendations from past literature the present study made use of the survey method using an online questionnaire as a data collection instrument to allow access to an expansive population size in cost effective and time saving manner without being hindered by geographical constraints, while also offering a degree of control based on the sampling techniques used to select potential respondents truly representative of the overall population (Bertram & Christiansen, 2014; Babikova & Bucek, 2019; Zikmund et al., 2012).

The analysis made use of Structural Equation Modeling as has been the norm in the existing literature by (Almıaçık & Almıaçık, 2012; Babikova & Bucek, 2019; Klimkiewicz & Oltra, 2017; Sivertzen et al., 2013; Tanwar & Kumar, 2019). This process included an initial Exploratory Factor Analysis, followed by a further Confirmatory Factor Analysis to confirm if the factor loadings line up with those proposed by the measurement scales taken from literature as a means to ensure their fit and validity. A common latent factor test was carried out to account for potential common method bias and to ensure the proper model fit. Finally, a

path analysis was conducted based on t-tests and betas of the regression paths of the proposed model, allowing for conclusions to be drawn about the hypotheses of this study.

### 3.2 *Population and Sample Size*

The proposed population for the study was chosen in line with Azhar et al. (2010)'s approach of studying business students from universities in Pakistan for studying employment and recruitment trends. The universities were selected based on a combination of non-probability sampling techniques such as purposive sampling similar to those use made of by Ahmad (2012), Azhar et al. (2010) and, Ismail (2016) with the primary criteria being that the population studied includes only MBA students currently enrolled in the business schools of Pakistani universities that are recognized by the Higher Education Commission of Pakistan. The reason for the choice of MBAs for the purpose is twofold; students, especially those pursuing post graduate studies, are active job seekers who are best suited for this research (Sivertzen et al., 2013); additionally, MBA students are more likely to have more varying levels of work experience in terms of the time they have spent in the labor market (Arachchige & Robertson, 2013), allowing the research to study a more heterogeneous sample than has been the case in past literature. Following the approach provided by Israel (1992) that was based on formula found by Cochran (1977) it was determined that a sample of 210 respondents would be used for the purpose of this study on the basis of purposive sampling as has been seen in past literature e.g. Shah and Soomro (2017).

### 3.3 *Measures*

In line with Sivertzen et al. (2013), respondents were initially asked for demographic data to serve as control variables and whether or not they are currently enrolled in an MBA program and if so at which institution. Respondents then rated items pertaining to different dimensions of Berthon et al. (2005)'s employer attractiveness 7-point Likert scale. Moving further they were asked to select from a list of five companies (Unilever, Nestle, Engro, Coca Cola, Telenor) that they feel they are most familiar with. The companies were selected based on purposive sampling with the following criteria: companies operating in Pakistan that are rated at least 4 stars out of 5, a company size of 5,000 employees or more and had at least 100 reviews. Glassdoor was used as it is seen as an accurate reflection of employee experiences at companies and a clear source of corporate reputation via word of mouth that influences the intentions of job seekers (Brooke, 2017). Based on the chosen companies, respondents rated items on 5-point Likert scales for corporate reputation (Turban et al., 1998), the use of social media by (Collins & Stevens, 2002) and, the intention to apply (Highhouse et al., 2009). To extend the original research, work experience in number of years was added as a moderator variable. The choice of retaining work experience as a continuous variable was made to mitigate to a loss of information and a failure to consider the sensitivity that may stem from the lack of a proper cutoff point (Bagozzi et al., 1992; Baumgartner & Weijters, 2019).

Table 2  
*Measurement Scales*

Variable	Source	Items
Employer Attractiveness	Berthon et al. (2005)	25
<ul style="list-style-type: none"> <li>• Interest Value</li> <li>• Social Value</li> <li>• Economic Value</li> <li>• Application Value</li> <li>• Development Value</li> </ul>		
Corporate Reputation	Turban et al. (1998)	4
Social Media Use	Collins and Stevens (2002)	4
Intention to Apply	High house et al. (2003)	4
Work Experience (Number of years)		1

## 4. Results and Data Analysis

### 4.1 Descriptive Statistics

Of the 220 responses collected via the online questionnaire, representation of male respondents was slightly higher (57.2%) than women (42.8%), most likely due to men being more prone to pursuing corporate positions than women. The 22-25 age group was the most highly represented in the sample (44.5%), followed closely by the 26-35 age group (40.2%). Understandably most of the respondents (cumulatively 59.8%) had either no real experience or had been in the corporate world for no more than 2 years. However, those with moderate and high years of work experience also made for a sizable proportion of the population (40.2%), providing fairly even representation of both experienced and inexperienced individuals which is an important factor in light of the current research.

The highest representation of MBA students came from Lahore School of Economics (20%), Lahore University of Management Sciences (12%) and National University of Computer and Emerging Sciences (14%); three institutes that were most easily accessible. In total, students from MBA programs from 14 institutes across various cities of Pakistan were selected, ensuring that the data would capture insights that would be fairly representative of the overall population of MBA students in Pakistan. Of the 5 companies provided to the respondents to select which they felt they were most familiar with, Coca Cola and Nestle were selected most frequently (25% and 23% respectively) due to near universal awareness these brands have created for themselves, followed closely by Unilever and Engro (20% and 19% respectively) and trailed significantly by Telenor (11%).

#### 4.2 *Exploratory Factor Analysis and Confirmatory Factor Analysis*

To ensure that the correlations shown in the component correlation matrix were not due to high inter-item correlations and to identify distinct components for further analysis, EFA was carried out with the component matrix undergoing the Promax rotation as suggested by Finch (2006). The pattern matrix generated showed eight distinct components based on the factor loadings exceeding 0.5 which has been deemed to be acceptable in literature (Hair et al., 2009). Based on the results, it is clear that the items measuring each of the latent variables as part of the theoretical framework effectively load on to each unique factor and as such a Confirmatory Factor Analysis can be carried without having to drop any items from the chosen measurement scales.

Table 3  
*Component Correlation Matrix*

Component	1 (AV)	2 (SV)	3 (IV)	4 (DV)	5 (EV)	6 (SM)	7 (IA)	8 (CRep)
1 (AV)	1.000							
2 (SV)	.273	1.000						
3 (IV)	.371	.392	1.000					
4 (DV)	.527	.400	.349	1.000				
5 (EV)	.108	.352	.288	.178	1.000			
6 (SM)	.120	.132	.130	.129	.031	1.000		
7 (IA)	.158	.196	.072	.265	.164	.525	1.000	
8 (CRep)	.187	.204	.129	.239	.126	.515	.565	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Prior to CFA, a common latent factor was introduced to account for common method bias that could influence the model fit as suggested by Podsakoff et al. (2003) and Gaskin (2021). The model fit indices of the model showed a strong fit showing it be sufficient for further analysis. It also showed that CLF did explain a significant amount of shared variance

in the initial measurement model as seen by the difference in Chi-square value of model and the degrees of freedom the unconstrained between an unconstrained and constrained common latent factor (Chi-sq=979.0 df=601 constrained to Chi-sq=725.2 df=530 unconstrained). Leaving the CLF unconstrained also had an impact on factor loadings of Social Value due to two highly correlated items; SV4 (A fun working environment) and SV5 (A happy working environment). Due to the high correlation between the two, SV5 was dropped leading to far more improved model fit and improved factor loadings for Social Value.

Table 4  
*CLF Adjusted Model Fit*

<b>CMIN/df</b>	<b>SRMR</b>	<b>TLI</b>	<b>NFI</b>	<b>CFI</b>	<b>RMSEA</b>	<b>PCLOSE</b>
1.368	0.0453	0.957	0.878	0.963	0.041	0.981

Table 5  
*Pattern Matrix*

		<b>Pattern Matrix<sup>a</sup></b>							
		Component							
		1	2	3	4	5	6	7	8
<b>IV1</b>				.932					
<b>IV2</b>				.868					
<b>IV3</b>				.820					
<b>IV4</b>				.860					
<b>IV5</b>				.732					
<b>SV1</b>		.843							
<b>SV2</b>		.893							
<b>SV3</b>		.858							
<b>SV4</b>		.867							
<b>SV5</b>		.775							
<b>EV1</b>						.854			
<b>EV2</b>						.865			
<b>EV3</b>						.887			
<b>EV4</b>						.800			
<b>EV5</b>						.762			
<b>DV1</b>					.872				
<b>DV2</b>					.849				
<b>DV3</b>					.839				
<b>DV4</b>					.890				
<b>DV5</b>					.748				

*Table to be continued*

AV1	.854											
AV2	.907											
AV3	.827											
AV4	.884											
AV5	.800											
CRep1											.792	
CRep2											.844	
CRep3											.593	
CRep4											.823	
SM1						.744						
SM2						.883						
SM3						.908						
SM4						.880						
IA1										.791		
IA2										.835		
IA3										.765		
IA4										.830		

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 7 iterations.

### 4.3 Reliability and Validity

The reliability and validity of the data were tested using the estimates of standardized regression weights and the correlations of the latent variables in the CLF Adjusted. In line with Hair et al. (2009), results were shown to have sufficient divergent validity as the AVE for each construct exceeded 0.5; it was further seen that the Maximum Shared Variance (MSV) did exceed its AVE and the square root of AVE of each construct exceeded inter-construct correlations, that the constructs are statistically distinct and discriminant validity is present in the model. The reliability of the results was also confirmed as each construct had a Composite Reliability above 0.7 meaning that the constructs measured what they were intended to do so.

Table 6

#### Discriminant and Convergent Validity

	CR	AVE	MSV	MaxR(H)	IV	IA	SM	CRep	AV	DV	EV	SV
IV	0.906	0.658	0.189	0.908	0.811							
IA	0.873	0.633	0.549	0.880	0.080	0.796						
SM	0.895	0.680	0.450	0.895	0.124	0.671	0.824					
CRep	0.833	0.556	0.549	0.838	0.131	0.741	0.642	0.746				
AV	0.889	0.616	0.323	0.897	0.435	0.151	0.207	0.215	0.785			
DV	0.904	0.655	0.323	0.909	0.402	0.314	0.203	0.328	0.568	0.809		
EV	0.900	0.643	0.177	0.910	0.327	0.175	0.044	0.149	0.103	0.204	0.802	
SV	0.891	0.671	0.282	0.897	0.392	0.272	0.111	0.232	0.418	0.531	0.421	0.819

#### 4.4 Path Analysis

The path analysis was carried out in two parts; a primary model initially free of the proposed moderating influence of social media use and work experience in years, before introducing the influence of these proposed interactions and taking the impact they have into account to establish the final causal model. Upon an initial run of the model, it was found that model generated mixed results regarding the model fit indices; SRMR=0.0281, CFI=0.933, NFI=0.923 were all seen to be well within their acceptable ranges for a good model fit, TLI=0.660, RMSEA=0.137, PCLOSE=0.000 and CMIN/df=5.135 showed a more pessimistic view of the model fit. This did indicate that the model was flawed as the discrepancy might have arisen from reasons such as limited sizes and high factor loadings (Lai & Green, 2016).

To account for the discrepancy in fit, Markland and Ingledew (1997)'s suggestion of inspecting modification indices was followed to make changes like paths between social value and intention to apply, between social media use and intention to apply, and between application value and intention to apply. All three changes can be said to have support in prior literature; application value and social value dimensions of employer attractiveness have become more inherently linked with the symbolic benefits a company can offer in a way that often supersedes reputational aspects (Arachchige & Robertson, 2013; Babikova & Bucek, 2019; Hadi & Ahmed, 2018) and the increasing importance of social media content for employers in interacting with potential recruits and their subsequent willingness to apply (Caers & Castelyns, 2010; Kissel & Büttgen, 2015; Walker et al., 2011). The changes resulted in a significantly improved model fit to move forward with.

Table 7  
*Path Analysis Model Fit*

CMIN/df	SRMR	TLI	NFI	CFI	RMSEA	PCLOSE
2.882	0.0207	0.845	0.974	0.981	0.093	0.030

This was followed by the introduction of the two moderation interaction effects proposed in the theoretical framework by standardizing the relevant observed variables generated after the imputation of the CLF adjusted measurement model, followed by the creation of two new observed variables, both of which are product of the moderating variable and the independent variable in the proposed moderating interaction. For the social media use-corporate reputation relation the variable name was set to be SM\_x\_CRep, while for the work experience-corporate reputation interaction the new variable was named WorkExp\_X\_CRep. The resulting variables were used as observed exogenous variables that were co-variated to the other observed variables by creating paths between work experience and intention to apply, social media interaction effect and intention to apply and, work experience interaction effect and intention to apply.



The results of the path analysis were indicative of the finalized Structural Equation Model and were used to interpret and test out the proposed hypothesis. It was found that of the five proposed dimensions of employer attractiveness only two: economic value and development value, showed statistically significant links to corporate reputation as originally proposed. Additional insights from the analysis of the modified model included the confirmation of a statistically significant direct relation between social value and application value and, the intention to apply. Furthermore, the proposed relations between social media use and “corporate reputation and between corporate reputation and intention to apply were confirmed as was the moderating effect of social media use on the relation between corporate reputation and intention to apply. Finally, work experience was found to not have any sort of moderating effect and in fact had no significant impact on any of the constructs in the model as a whole.

Table 8  
Standardized Regression Weights Direct Effects

Parameter			Estimate	P
CRep	<---	IV	-.069	.308
CRep	<---	SV	.088	.095
CRep	<---	EV	.086	.099
CRep	<---	DV	.205	.010
CRep	<---	SM	.659	.010
CRep	<---	AV	-.060	.267
CRep	<---	Company	-.097	.023
IA	<---	CRep	.537	.010
IA	<---	SM	.345	.010
IA	<---	SV	.174	.010
IA	<---	AV	-.138	.010
IA	<---	Work_Experience	-.004	.935
IA	<---	WorkExp_x_CRep	-.002	.916
IA	<---	SM x CRep	-.062	.086

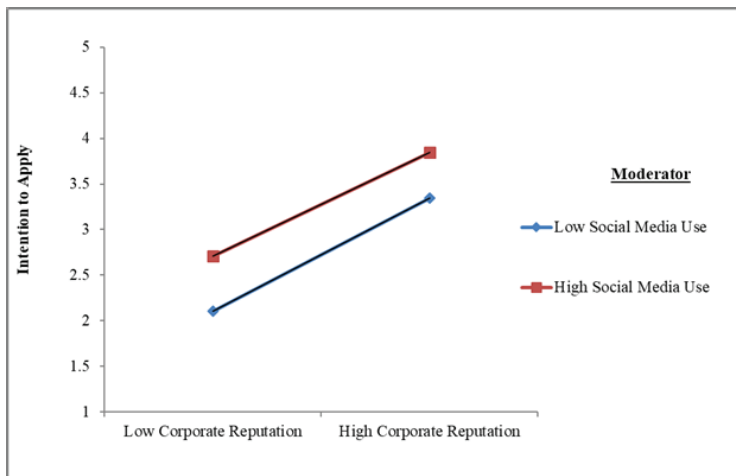


Figure 2: Moderation Interaction Effect

The standardized regression weights presented in Table 8 are evidence of the statistical significance of the proposed hypotheses. Hypothesis 1 stated that “Applicants’ perceptions of interest value are positively related to employer corporate reputation” and based on the standardized regression weights ( $\beta = -0.069$ ,  $p = 0.308$ ) it was rejected. Hypothesis 2 stated that “Applicants’ perceptions of social value are positively related to employer corporate reputation” and based on the standardized regression weights ( $\beta = 0.088$ ,  $p = 0.095$ ) it was accepted. Hypothesis 3 stated that “Applicants’ perceptions of economic value are positively related to employer corporate reputation” and based on the standardized regression weights ( $\beta = 0.079$ ,  $p = 0.099$ ) it was accepted. Hypothesis 4 stated that “Applicants’ perceptions of development value are positively related to employer corporate reputation” and based on the standardized regression weights ( $\beta = 0.205$ ,  $p = 0.01$ ) it was accepted. Hypothesis 5 stated that “Applicants’ perceptions of application value are positively related to employer corporate reputation” and based on the standardized regression weights ( $\beta = -0.060$ ,  $p = 0.267$ ) it was rejected. Hypothesis 6 stated that “Employer corporate reputation has a positive relation with an applicant’s intention to apply” and based on the standardized regression weights ( $\beta = 0.537$ ,  $p = 0.01$ ) it was accepted. Hypothesis 7 stated that “Applicants’ perceptions of employer’s use of social media is positively related to perceived corporate reputation” and based on the standardized regression weights ( $\beta = 0.659$ ,  $p = 0.01$ ) it was accepted. The hypotheses pertaining to the moderation effect were also studied; Hypothesis 8 “Applicants’ perception of employer’s use of social media moderates the relationship between perceived corporate reputation and intention to apply” ( $\beta = -0.062$ ,  $p = 0.086$ ) was accepted while Hypothesis 9 “Prior work experience moderates the relationship between perceived corporate reputation and intention to apply” ( $\beta = -0.002$ ,  $p = 0.916$ ) was rejected.

## 5. Discussion

### 5.1 Theoretical Implications

One major theoretical implication of this current study is the validation of the EmpAt scale. The scale has seen to be sensitive across different cultures and geographical locations as seen in Sivertzen et al. (2013), Babikova & Bucek (2019), Hadi and Ahmed (2018) and, Liu (2018). It is hence imperative to carry out confirmatory factor analysis to establish the dimensions that best represent a context when studying employer branding. The direct relation between dimensions of social and application value to intention to apply also provides an insight to the functional and psychological benefits considered most important in the current context. The study was also able to add credence to growing research about the use of non-traditional media such as social media platforms as a means to generate interest amongst prospective applicants. The moderation effect on display in this research also adds to the theoretical importance of the type of content organizations choose to use on their social media platform and raises the question if social media use by an organization can actually damage their already established reputation. This differs from Sivertzen et al. (2013)’s original study

who was unable to identify such a moderating effect. The study also attempted to address the discourse on the potential impact of work experience on employer branding and found no evidence to suggest that work experience has any major effect.

## 5.2 *Practical Implications*

There are a number of key takeaways for managers and decision makers that this study puts forward. One major takeaway is that managers and organizations in Pakistan as whole need to develop an awareness of how they are perceived by the general public. Managers must become aware of what applicants find attractive so that they may effectively curate their corporate reputation in a way that it serves as signal to high quality talent. Social media use in particular plays an important role in the ability of a company to leverage its corporate reputation as means to attract talent. Results of this study shows that the use of social media by employers seems to be actively hindering the organizations' ability to leverage its established corporate reputation to attract top-tier talent. Managers hence should make it a priority to identify where the potential dissonance stems from and deal with it accordingly. This directly links to the next takeaway that if managers are able to identify and remove the cause of dissonance, they can actively leverage the power of social media to improve their "corporate reputation" and hence enhance their ability to attract talent. Managers must also become aware of what their potential employees find most attractive in an employer and use that knowledge to cultivate a corporate reputation that signals to talent that the company is the best fit for them. In doing so, the companies will also be able to save costs in the long run by having to spend less time in sorting out relevant high-quality talent.

## 5.3 *Limitations and Future Direction*

This study was limited primarily due to its cross-sectional design, meaning it only captured a minor snapshot of the overall picture. To rectify this, a longitudinal study is proposed to track changes in employer attractiveness dimensions over the course of a set timespan. The study was also limited due to the use of self-administered online questionnaires which may mean that the data is not of as high a quality as it could have been. The use of work experience in number of years alone may have also limited the ability of the study to gather meaningful data in regards to that particular hypothesis. It is hence suggested that in future studies a more robust scale that considers aspects such as job satisfaction and relations with past employers may serve similar research better. The study was restricted in its efforts to continue and extend Sivertzen et al. (2013)'s original study and hence there may be scope to study this topic with a different set of scales that are more in line with the context future research may be conducted in. One suggested change in scale is the one used for the measurement of social media use. The scale from the original study was a modified form of a scale usually used for general marketing purposes. A scale specifically designed to capture social media use could provide a better fit in the future. As the study was able to confirm a

hypothesis that was rejected in the original study it shows that there is scope for it to be replicated in even more contexts. The use of only MBA students in sample led to a highly homogenous sample which the study tried to counteract by using work experience as a moderator. A better approach may be to conduct multi-group analysis from not only MBAs but professionals from other fields and associated to other types of firms than the one used in the current study as well to get a clearer and more holistic view of employer branding.

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# Human Resource Management Practices and their Potential Relationship with Organizational Citizenship Behavior in Educational Institutes

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## Abstract

*The current trends in technology and globalization have encouraged Human Resource Management Practices (HRMP) to adopt optimized strategies in dealing with challenges faced by educational institutions. To achieve the desired results and outcomes in educational institutions in a definite time frame, valuable policies, capabilities and values need to be implemented. For creating a sustainable organizational environment, Organizational Citizenship Behavior (OCB) has been developed for supportive and cooperative interactions and improving the relationship between the employer and employee, by cooperating for the effective running of the school organization. The current study is aimed to investigate the relationship between HRMP and OCB in higher secondary schools in Dir Lower and Upper. This study is quantitative and data was collected through a closed-ended questionnaire. The collected data was analyzed with Pearson correlation techniques. It was found that HRMP had a notable relationship with OCB in higher secondary schools in Pakistan. Results further suggested that the factor Performance Appraisal (PA) had a high relationship with OCB, while the rest of the practices had a low relationship with OCB. After discussion, in light of the available literature, recommendations have been framed for educational institutions and policy makers. Another research study is recommended for other components of HRMP with school culture, principal leadership style, etc. This study was conducted in public sector schools and a similar study is to be conducted in private sector schools. The proposed study will make a comparison between public and private sector schools to check which schools have adopted the HRMP.*

**Keywords:** Human resource management practices; organizational citizenship behavior; educational institutions; performance appraisal.

**JEL Classification:** D23, I 20, O15

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## 1. Introduction

Organizational citizenship behavior (OCB) means voluntary actions that go beyond the agreed responsibilities and hence, encourage the professionals for the effective operations of the organizations (Jain & Rizvi, 2020). OCB is an important factor that improves the performance of employees (Rahman & Chowdhuri, 2018). OCB influences policy-making, decision-making, teamwork, duty and accountability (Polat, 2009). Whenever a high level of OCB practices exists in an organization, then the best performance and delivery of services can be observed, and less absenteeism of the employees in the organization occurs. The results of the study conducted by Natarajan and Gong (2011) concluded that OCB and an employee's working performance have close links with each other. An institution's ability to develop and manage OCB among its staff can be a key advantage for the organization (Bolino & Turnley, 2003). These key advantages can efficiently and effectively become the source of the institution's competitive advantage.

Ahmad (2016) stated that creating motivations for volunteer behavior through the implementation of effective HRMP in organizations encourages the employees to go beyond the agreed responsibilities, called OCB. HRMP in the schools has been shown to empower teachers, which improves OCB and the result is teachers perform their responsibilities for the school's performance and effectiveness with zeal and fervor (Runhaar et al., 2013). Institutions need to execute a scope of HRMP to induce OCB among their workforce (Bolino & Turnley, 2003). HRMP builds up a domain, which advances OCB culture. Understanding OCB is thus advantageous for the intellectual capital development of schools and in this way teachers and administrators cooperate to make schools favorable for learning (DiPaola et al., 2004). Effective HRMP brings high engagement of employees through OCB activities outside a formal job description and this behavior may result in increased performance of the organization (Podsakoff et al., 2000).

This study focuses on the relationship of HRMP including Recruitment & Selection (RS), Training & Development (TD), Performance Appraisal (PA), and Compensation & Rewards (CR) system with OCB in the educational setting (in higher secondary schools of Dir Lower and Upper) in Pakistan.

### 1.1 *Statement of the problem*

The role of OCB is an emerging dimension for organizations, but it is highly effective for organizational success and promotes positive attitude and behavior in an organization's environment. This results in effective operation and performance of the organization. In the context of Pakistan, very little research has been done on the relationship between HRMP and OCB. A large number of educational institutions are yet to work with HRMP in Pakistan. A very low portion of the Pakistan overall budget is allocated to the education sector (2% in

FY 2021-2022). Under these circumstances, a recommendation for educational institutions in Pakistan would be to participate in activities leading to self-development within the range of their available resources.

The main purpose of this study is to investigate the relationship between HRMP and OCB in higher secondary schools of Dir Lower & Upper Khyber Pakhtunkhwa, Pakistan.

### **1.2 Objective**

- To analyze the relationship between HRMP and OCB.
- To analyze which HRMP dimension has a statistically significant relationship with OCB.

### **1.3 Research Questions**

- Is there any remarkable relationship between HRMP and OCB?
- Which HRMP dimension has a remarkable relationship with OCB?

## **2. Literature review**

In the business world, every organization wants to achieve specific, measurable, time-based and targeted objectives using their resources productively. In order to accomplish this objective in an organization, the establishment of OCB has been shown to be an important component. The term OCB was introduced by Organ and Bateman (1983). At that time, most managers and leaders did not anticipate that research studies on OCB would find such statistical significance for OCB in the private and public sector institutions studied. In his research reporting, Organ (1988) established the theory of OCB in which he expressed that the freewill behavior of the individuals in the organization, though not directly rewarded or explicitly stated in the job description, are what overall and collectively enable the organization to function effectively.

### **2.1 Organizational Citizenship Behavior (OCB)**

OCB is the behavior of a person, which is flexible and not directly identified and recognized by a formal system of rewards that collectively encourages the operation of the organization. OCB reflects voluntary actions that go beyond the agreed responsibilities (Jain & Rizvi, 2020; Mallick, et al., 2014). The behavior of OCB encourages the professional as well as effective operations of the organization and its employees (Gripe & Vantilborgh, 2018; Jain & Rizvi, 2020). An organization's effective performance greatly depends upon the working environment which includes the volunteer behavior of its employees (Birzri, 2018). The researcher further shared that companies and institutions are eagerly searching for



methods for improving performance and regularly consider OCB to be an important means of increasing efficiency in an organization's productivity.

OCB is an essential factor that improves the performance of employees (Rahman & Chowdhuri, 2018). OCB has been studied to discover the behavioral reason for the performance of an individual in his work environment. The relevance of OCB stems from the fact that success and survival of an institution greatly depends upon the positive action from the worker that eventually has an impact on the organization and their working environment (Ong et al., 2018).

A greater level of OCB in an organization yields improved organizational performance, efficiency, worker satisfaction, and increases in the productivity of the organization (Miao et al., 2018; Ong et al., 2018). As OCB increases the performance of the employees, the organization then more easily achieves its desired goals (Chattopadhyay, 2017).

## **2.2 *Human Resource Management (HRM)***

Managing institutional employees through proper supervision of strategic resources, gaining competitive benefits, and creating more value than other organizations is termed HRM (Ahmadpour Dariani, 2017). HRM includes rules and regulations, procedures, processes and practices that have an effect and impact on workers' behavior, attitude, skills and work performance (Madanat & Khasawneh, 2018). Furthermore, Cesário and Magalhães (2017) and Snell and Bohlander (2013) define HRM as a practice of managing human aptitudes to accomplish an organization's objectives, which allocate the greatest utilization of employees in an institution to achieve the goals of the institution (Fong et al., 2011; Gope et al., 2018).

## **2.3 *Human Resource Management Practices (HRMP)***

HRMP is for managing human resources in an organization, which is commonly practiced by human resource professionals (Ulrich, 1997). Another research study, conducted by Quresh et al. (2010), concluded that HRMP is the course of action, procedures, and practices that need to be transmitted to the employee. These HRMP consist of the following dimensions; Selection, Recruitment, Training & Development, Performance Appraisal, Reimbursement, Motivating Workers, and Involvement of Employees in Decision Making (p. 1282). HRMP seeks to improve employees' performance and competitiveness for the improved progress of the organization (Aryanto et al., 2015; Noe et al., 2017).

Shahnawaz and Juyal (2006) highlighted that HRMP are those practices that are utilized for general management in an organization which includes decision-making and other practices that openly influence the employees, who work diligently for an organization (p.

171). Donate et al. (2016) expressed that HRMP consists of the following dimensions; Careful Recruitment, Selection, Training & Development, Performance Appraisal, and Rewards & Recompense. Teclmichael et al. (2006) described eight HRMP and their associations with worker performance including; Recruitment & Selection, Performance Appraisal, Training & Development, Compensations & Rewards, Promotions, Placement, Grievance Procedure, and lastly, the Retirement Fund & Social Security.

A variety of HRMP are discussed in the reviewed literature, but this current study is limited to four HRMP including Recruitment & Selection (RS), Training & Development (TD), Performance Appraisal (PA), and Compensation & Rewards (CR). Pakistan is considered as a developing country with a very low budget i.e. 2.4% spent annually on education (Report, 2019). Therefore, this research focuses on these HRMP that have an impact on OCB, which may increase the interest of employees in the education sector and improve and help in the quality of education in higher secondary schools. The following section discusses these four practices.

#### **2.4 Recruitment & Selection (RS)**

RS includes two connected forms; “recruitment” is the way toward making a collection of capable individuals apply for work to an organization, while “selection” is the method by which particular procedures are utilized to choose the most reasonable applicant for the job (Bratton & Gold, 2017). RS is the process of scanning potential employees and pushing and motivating them to apply for occupations in an organization (Eusebio et al., 2017). RS are categorized into three steps including defining requirements, attracting candidates, and selecting candidates (Armstrong & Baron, 2002). A more impartial RS policy in the organization results in a healthier outcome in the form of satisfied and dedicated employees (Rioux & Bernthal, 1999).

#### **2.5 Training & Development (TD)**

TD is mainly concerned with the achievement of understanding how strategies, techniques and practice are observed in the organization. TD is the main practice of HRM, as it improves the working environment more effectively and increases the performance of the individuals, resulting in mutual respect and improvements in the organization’s outcomes (Ahmad & Asghar, 2014). TD not only increases and enhances the knowledge of employees, but also offers the additional benefits of networking and learning from different experiences (Choo & Bowley, 2007; Imran & Tanveer, 2015). Khan et al. (2016) highlighted that “training” is specific in scope and mostly arranged for the current job. “Development” is wider in scope and prepares the employee for future jobs in the organization. He further added that TD aims to improve employees’ professional skills and their ability to achieve extraordinary outcomes that effectively gain the goal of the organization.

Similarly, Rowden (2005) pointed out that training not only improves the capabilities of employees, but also developed the potential of employees to be able to meet the organization's goals and objectives, to gain new skills, experience, and knowledge that enabled them to perform their jobs at higher levels. They further explained that employees who received training through HRMP were found to have improved job performance, were more satisfied performing the same duties, were willing to work in the same organization, and performed better than those employees who received no training.

## **2.6 Performance Appraisal (PA)**

PA is a formal procedure through which employees are evaluated by organizations and supervisors. The evaluation process uses a predetermined set of objectives and goals to score the performance (DeNisi & Murphy, 2017). PA measures how well and how much employees achieve job-relevant activities and tasks and helps in identifying the more competent employees (Ishizaka & Pereira, 2016). Researchers and employers are gradually considering the PA process as a valuable tool to manage and improve employees' performance (Buchner, 2007; Selvarajan et al., 2018).

The most important aim of PA is to encourage human resources, ultimately improving and developing their performance in the workplace (DeNisi & Pritchard, 2006; Selvarajan et al., 2018). The PA system is a key device for measuring and ensuring individual employee responsibilities at any public and private sector institution and non-profit organization (Rubin & Edwards, 2020).

PA is particularly significant for the motivation, encouragement, and development of highly-skilled and knowledgeable employees, who are required for operating effective and competitive educational sector institutions (Gu & Nolan, 2017). PA encourages employees to develop and improve their skills as well as to achieve their target goals and objectives when CR are conditionally based upon performance (Memon et al., 2019).

## **2.7 Compensation and Rewards (CR)**

CR is one of the components of HRMP. The organization provides incentives to the employee for their extraordinary work, timely completion of activities, long-term performance, and for achieving the desired objective in due course of time (Jimenez-Jimenez & Sanz-Valle, 2013). Drucker and White (2000) defined the system of remuneration management as the process of applying a strategic plan and advancing the system to achieve the organization's goals. Furthermore, it is the process of attracting, coordinating, inspiring and acknowledging employees in terms of their performance (DeGieter et al., 2011). CR benefits consist of all types of additional payments, appreciation programs, flexible employment hours, and health care protection (Sherman & Snell, 1998). Examples of extrinsic and

intrinsic rewards provided by the organization include the view of one's occupation as valued, the level of worker commitments, devotions, endeavors, and performance (Holston & Kleiner, 2017).

Tahir (2019) investigated the intrinsic and extrinsic payment instrument in the education sector of Pakistan and characterized that Compensation had a positive connection with motivation, enhanced worker spirit and persistence, and was representative of commitment and profitability.

## **2.8 Relationship between HRMP and OCB**

Ahmad (2016) investigated the collective effect of HRMP on OCB among employees. Results of the study highlighted that the HRMP dimension, RS, held momentous connections with OCB. Similarly, TD showed a moderate association with OCB, CR had a low but positive association with OCB, and PA showed a low statistically significant association with OCB. Another study conducted by Khan (2018) concluded that HRMP dimension, PA systems in the organization, had a significant association with OCB, followed by RS practices. While TD and CR systems had a low effect and association with OCB. Another study, by Harsasi and Muzamil (2017), explored the effect of HRMP on OCB with the arbitrating role of Organizational Commitment. It was found that HRMP in the school has an affirmative connection with OCB, with the mediating role of Organizational Commitment.

Jain and Jain (2014) investigated HRMP and OCB and their subdimensions. The results of the study confirmed that all HRMP have a positive relationship with OCB. They also concluded that the HRMP dimension, PA, had a high and statistically significant correlation with OCB, as compared to the other practices.

A research study conducted by Begum et al. (2014) explained that the HRMP dimension, RS, had a close relationship with OCB. RS was shown to affect OCB and its subdimensions. During the RS process of employees, organizations should not support negative factors such as discrimination. Such negative behaviors may cause a reduction in employee motivation and increase in disheartenment, resulting in lower OCB. Khan, Safwan and Ahmad (2011) expressed that through the HRMP dimension, TD, organizations encouraged and motivated employees to bring more OCB to the workplace. Furthermore, they highlighted that TD was the main practice to motivate employees for OCB. Using the five OCB measuring tools is the key strategy to identify areas for improvement that will produce high-level returns to human resources and organizations.

According to Werner et al. (1994), the challenging task for an organization is to hire a staff that naturally possesses OCB. Importantly and similarly, Cloninger et al. (2011) stated that TD improved employees' self-ownership, commitment, encouragement and

motivation. Furthermore, an impartial system of rewards encouraged cooperation among employees instead of competition, which increased OCB among employees. Further, Organ (1990) expressed that PA plays a central contribution in enlightening OCB. The benchmarks for PA improved staff behavior, the organization’s value, and directly influenced employees’ attitudes and manners.

Podsakoff et al. (2009) expressed that an organization has the option to decide to incorporate OCB and improve organizational effectiveness by setting clear PA mechanisms for the evaluation of employees in the organization. Tufail et al. (2017) highlighted that employees, who are satisfied with CR, work with passion, cooperate with co-workers, and are more committed to the organization. Similarly, Shaw and Gupta (2015) and Sung et al. (2017) expressed that CR produced a high drive and positive attitude and behaviors in a working environment, which increased organizational effectiveness. They further shared that CR increases employee competence and commitment resulting in the effective operational function of the organization.

Additionally, Nguyen (2016) scrutinized the correlation between HRMP and OCB at primary schools in Taiwan. The results of the study concluded that not all HRMP contributed to developing OCB among school teachers. However, the positive perception of teachers, proper placement and educational career contributed more to establishing OCB among teachers as compared to Communication, Retention, and PA.

**2.9 Conceptual framework of the study**

In light of the aforementioned literature review, the researchers of this current study developed a conceptual model to conduct a study on HRMP and the potential relationship with OCB in the Pakistani educational context. This study chose four HRMP dimensions including RS, TD, PA, and CR. The other variable, OCB, is composed of five dimensions: Altruism, Civic Virtue, Consciousness, Courtesy, and Sportsmanship.

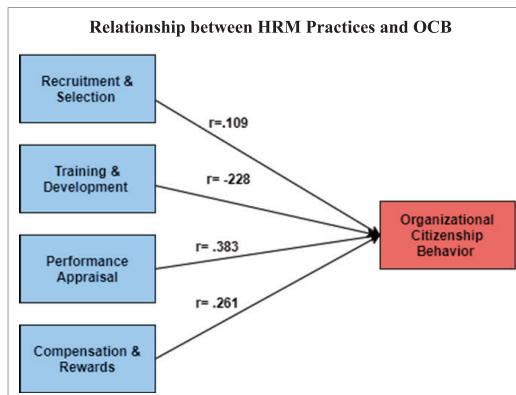


Figure 1: Conceptual framework of the study

### **3. Methodology**

#### **3.1 *Research design of the study***

Research design is a specific sketch of procedures which are carried out for data collection, data analysis and reporting Creswell (2017). The current study is quantitative. The design of this study is correlational in which two variables namely HRMP and OCB are used. The reason for choosing a quantitative approach for this research was to generalize findings of the study for the whole population. Furthermore, Creswell and Creswel (2017) expressed that quantitative research is reasonably appropriate and fitting for the recognizable proof of elements that influence an outcome.

#### **3.2 *Population and sample of the study***

The targeted respondents of the current study were school principals and subject specialists of higher secondary school Dir Lower and Upper. The total population for this research study was 410 where 334 were subject specialists and 76 were school principals. Furthermore, the sample size was taken from the total population to ensure the timely completion of this research study. Since the 1960s, Dir has been affiliated with Pakistan. However, for the sake of managerial ease, Dir was divided into two districts called Dir Upper and Dir Lower. Therefore, the stratified sampling procedure (Dir state divided into Districts Upper and Lower Dir) was used, followed by random sampling techniques (Random number function (RAND) in Microsoft Excel to generate random numbers) for this study, and because variation existed in the numbers of respondents. i.e., principals and subject specialists in male and female schools. To select an equal number of respondents from each stratum in the population, stratified random sampling is considered the best procedure (Chua, 2011). A total of 214 Subject Specialists and 69 school principals were approached for data collection but only 205 male and 43 female respondents participated in the survey and submitted a filled questionnaire. Data was collected in the month of March, 2021.

#### **3.3 *Instrumentation***

A closed-ended questionnaire was used for data collection. The instrument consisted of two portions. The initial portion consisted of basic demographic information about the participants, while the second portion comprised HRMP and OCB. The HRMP was operationalized through 19 items. Five Likert-style scale measures were used: Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. Similarly, OCB consisted of 20 items, measured on a Likert-style scale, Not True, Somewhat True, Quite True, True and Very True. Items of the questionnaire related to OCB were adopted from Niqab (2015) with permission, while the part related to HRMP was self-developed in light of available literature and validated through face validity. Scale reliability was checked through the test-retest procedure.

#### 4. Data analysis

Data was analyzed using SPSS V-25 software. The relationship between HRMP and OCB was analyzed by using Pearson correlation techniques, while the effect of HRMP was checked through linear regression.

##### 4.1 Demography

A total of 248 participants took part in this study. Among these respondents, 205 were male (82.7%) and 43 were female (17.3%). Regarding the age of the participants, 1.2 % of the sample were 25-30 years old, 6.5 % were 31-35 years old, 38.7% were 36 to 40 years old and 53.6% were more than 40 years old. Furthermore, in terms of professional qualification 9.3% of the respondents held bachelor of education degrees, 83.9% possessed a master of education degree, and 6.9% held other professional qualifications such as a diploma in education etc. Similarly, with regards to experience, 3.2% of the respondents had 1-5 years' experience, while 35.1% had teaching experience of 6-10 years. Most of the respondents (35.5 %) possessed teaching experience of 11-15 years; while 18.5% of the respondents possessed 16-20 years of teaching experience. The remaining 7.7% of the respondents possessed more than 20 years teaching experience. Furthermore, in terms of academic qualification it was noted that 92.3% respondents had a Master (MA) qualification, while 7.7 % had an advanced degree in Master of Philosophy (M.Phil.).

##### 4.2 Reliability and validity of instruments

Table 4.2 indicates internal reliability of the variables, HRMP and OCB. The value of items in the above validity and reliability index are within the limit of threshold values. Therefore, a data collection tool was appropriate for collecting information from the targeted respondents.

##### 4.3 Normality of data

Table 4.3 highlights that OCB has a high mean value of (3.99) followed by HRMP having a mean of 3.28. This table further shows that the data is normal on the basis of skewness and kurtosis values for the two variables HRMP and OCB. These values are within the threshold values of skewness and kurtosis ( $\pm 1.36$ ).

##### 4.4 Correlations

The results in Table 4.4 show a statistically significant and low correlation relationship between HRMP and OCB ( $r=.279, p=.000$ ).

Table 4.5 indicates that RS has a low and insignificant correlation with OCB ( $r=.109, p=.086$ ).

The analysis in Table 4.6 reflects that TD has a negative and low correlation with OCB ( $r=-.228, p=.000$ ).

Results in the Table 4.7 display that PA has a moderate and statistically significant correlation with OCB ( $r=.383, p=.000$ ).

Table 4.8 highlights that CR has a low correlation with OCB ( $r=.261, p=.000$ ).

Table 4.9 highlights that RS has a statistically significant correlation with TD and a negative correlation with PA and CR. Similarly, TD has a statistically significant correlation with PA and a negative correlation with PA and CR. In addition, PA has a high statistically significant correlation with CR and a negative correlation with RS and TD. In contrast, CR and PA have a high and statistically significant correlation with each other and a negative correlation with RS and TD.

## 5. Discussion and conclusion

The above analysis concluded that HRMP has an affirmative and noteworthy association with OCB ( $r=.279, p=.000$ ). The findings of the present study compare favorably with the study of Ahmed (2016), which found a joint effect of HRMP on OCB among Sudanese banking employees. The relationship between HRMP and OCB was investigated using Pearson correlation analysis and the results showed a positive statistically significant correlation. Another study of Harsasi and Muzammil (2017) has a similar finding. They reported that HRMP has a positive correlation with OCB. In another research study, conducted by Subedi and Sthapit (2020) to find the connection among HRMP and OCB in Nepalese institutions, they concluded that not all HRMP had a significant relationship with OCB. However, some practices have a positive correlation, while some have a negative and low correlation with OCB. The results of this contemporary study also reflect the same pattern.

### 5.1 Relationship among RS with OCB

Results highlighted that RS has a low and statistically significant correlation with OCB ( $r=.109, p=.000$ ). The study of Begum et al. (2014) is comparable to the current study findings. They concluded that during the RS process of employees, the organization should not include negative factors like discrimination. These types of practices discourage the promotion of OCB in organizations. In a different study, a fair and positive attitude during the RS processes was shown to facilitate hiring competent well-experienced employees. These types of behaviors promote the culture of OCB, which helps in the achievements of the organization. The more impartial the RS policy in an organization, the healthier will be the



outcome, and increase the level of satisfied and dedicated employees (Rioux & Bernthal, 1999). Hence, for effective functioning of an organization, fair and clear staffing and selection is mandatory.

### **5.2 Relationship among TD with OCB**

The aforementioned results disclosed that TD has a significant and negative correlation with OCB ( $r = -.228, p = .000$ ). In contrast to the current study, Ahmad (2016) highlighted that TD had a positive and statistically significant correlation with OCB. Studies like Bolina et al. (2003) and Ahmad (2011), conducted on the relationship of HRMP and OCB, found that TD had a statistically significant correlation with each other. They further added that TD is an important practice to produce many advantages for employees and institutions, which increases and develops OCB among the employees. Another study of Subedi and Sthapit (2020) found an association among HRMP and OCB and concluded that there was a positive and statistically significant correlation with OCB. Jain and Jain (2017) measured OCB and HRMP and highlighted that TD had a positive correlation with OCB. Another study of Subedi and Sthapit (2020) found an association between HRMP and OCB in Nepalese institutes. They concluded that TD had a statistically significant positive correlation with OCB, while the other studies showed a low correlation.

### **5.3 Relationship among PA and OCB**

Analysis of the current study data findings reveal that PA has a high and statistically significant relationship with OCB ( $r = .383, p = .000$ ), which is supported by the findings of Folger (1989), Organ (1990), Ahmad et al., (2001), Poursafar et al., (2014), and Ahmad (2016). These studies concluded that, through PA, workers of the organization will understand which values are considered high for the organization and thus positively influence the workers' behaviors. PA encourages employees to develop and improve their skills as well as to achieve their targeted goals and objectives when CR are conditional on performance (Memon et al., 2019). Similarly, Organ (1990) expressed that PA played a central contribution in enlightening OCB. The benchmarks for PA improve staff behavior and an organization's value and PA directly influences employees' attitudes and manners.

In contrast to the current study, Ahmad and Shahzad's (2011) research study showed that there was little proof found between the HRMP of PA and OCB. Before finalizing any performance policy, organization's need to first understand the purpose of the PA system, and then develop an effective PA system, because the relationship between PA and OCB is difficult to conceptualize and complicated.

#### 5.4 *Relationship among CR with OCB*

CR has a positive correlation with OCB ( $r=.261, p=.000$ ). The current study findings are aligned with the study of Ahmad (2016), who conducted a study to investigate the effect of HRMP on OCB. Findings concluded that CR had a low but statistically significant association with OCB. That study concluded that high CR contributed to high OCB in the organization. CR creates a sense that employees are important to an organization and this practice motivates staff to make extra effort for the development and achievement of organizational goals. The study of Subedi and Sthapit (2020) also found a connection between HRMP and OCB and concluded that the HRMP dimension TD had a significant correlation with OCB, while the CR system had a low correlation with OCB. Furthermore, Rehman and Chowdhuri (2018) conducted a study to investigate the effect of employee Compensation on OCB and concluded that Compensation had a high significant association with OCB, which is comparable to the current study findings.

#### 5.5 *Correlation among HRM practices*

The correlation among the sub-practices of HRM is different. Some have positive correlation with each other while some have a low and negative correlation. For example, RS has a significant correlation with TD and a negative correlation with PA and CR. Similarly, TD has a significant correlation with PA and a negative correlation with PA and CR. In addition, PA has a high significant correlation with CR and a negative correlation with RS and TD. Finally, CR and PA have a highly significant correlation with each other and a negative correlation with RS and TD.

### 6. **Implications**

This study has two types of implications: one is theoretical and the other is practical. In theoretical implication, this study verifies the relationship of HRMP and OCB. As per the practical implication, it is known that previously many studies were carried out on the association of HRMP and OCB in banking and industrial sectors, but little research, on the topic, was found in the education sector of Pakistan. As Schuler and Jackson (2005) expressed, a large portion of the educational institutions in Pakistan are still working without HRMP. In this way, HRM approaches are not completely well-designed and outfitted in the public sector organizations, education department offices, nor higher secondary schools (Jamil et al., 2007). Therefore, this research study has filled the breach in the literature.

In practical implication, this current study has highlighted some interesting findings and added new knowledge to the body of information and literature. This study has provided a road map for the policymakers, and principals of schools to practice HRM to advance the education system and ensure quality schooling in Pakistan. As Rahman (2014)

recommended, the Pakistani education system has to develop itself through its own available resources for which policymakers can introduce a new model. In this regard, a PA system and CR system should be encouraged in the education sector of Pakistan, which will develop the culture of OCB. OCB are those voluntary actions that go beyond the agreed responsibilities and are demonstrated by employees doing extra for objective achievements (Jain & Rizvi, 2020).

### **6.1 Delimitation of this study**

This current study has a delimitation in that it focuses on only four of the many possible HRMP found in the review of relevant literature. The targeted population for this study included school principals and subject specialists (male & female) in the District Dir Upper and Lower Khyber Pakhtunkhwa, Pakistan.

### **6.2 Limitations**

Due to a shortage of time and the Covid-19 Pandemic, the researchers were unable to probe the qualitative aspect of this study.

## **7. Recommendation for future research**

This study has added some important findings to existing literature. However, this study only examined the relationship of four HRMP with OCB. Another research study is recommended for other components of HRMP with school culture, principal leadership style etc. This study was conducted in public sector schools. A similar study is to be conducted in private sector schools, the results of which will then be used to make a comparison between public and private sector schools to check which schools have adopted the HRMP.

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## Appendix

Table 4.1

*Demographic Profile of Sample respondents (N=248)*

Demographic Characteristics		Frequency	Percentage%
Gender	Male	205	82.7
	Female	43	17.3
Age	20-30 year	3	1.2
	31-35 years	16	6.5
	36-40 years	96	38.7
	More than 40 years	133	53.6
Professional Qualification	B. ED	23	9.3
	M.ED	208	83.9
	Other	17	6.9
Experience	1-5 years	8	3.2
	6-10 years	87	35.1
	11-15 years	88	35.5
	16-20 years	46	18.5
	More than 20 years	19	7.7
Academic Qualification	Master	229	92.3
	M.Phil.	19	7.7

Table 4.2

*Reliability and validity measurement index (N=248)*

	Variables	Cronbach alpha
<b>HRM Construct</b>	Recruitment & selection(R&S)	0.72
	Training and development(T&D)	0.73
	Performance Appraisal (P&A)	0.87
	Compensation and Rewards(C&R)	0.90
	Altruism (ALT)	0.76
	Civic virtue (CV)	0.73
<b>Sub Dimension of OCB</b>	Consciousness (CON)	0.74
	Curiosity (CSY)	0.76
	Sportsmanship (SMS)	0.76

Table 4.3  
*Descriptive statistics (N=248)*

Variable	Minimum	Maximum	Means	Standard Deviation	Skewness	Kurtosis
Human Resource management Practice (HRMP)	2.21	4.78	3.2897	.49797	.151	-.069
Organizational Citizenship Behavior (OCB)	1.80	5.00	3.9921	.50015	-.088	1.32

### Correlations

Table 4.4  
*Correlation among HRM practices and OCB*

		HRM	OCB
HRM	Pearson Correlation	1	.279
	Sig. (2-tailed)		.000
OCB	Pearson Correlation	.279	1
	Sig. (2-tailed)	.000	

Table 4.5  
*Correlation among R&S practice and OCB*

		RS	OCB
RS	Pearson Correlation	1	.109
	Sig. (2-tailed)		.086
OCB	Pearson Correlation	.109	1
	Sig. (2-tailed)	.086	

Table 4.6  
*Correlation among T&D practice and OCB*

		TD	OCB
TD	Pearson Correlation	1	-.228
	Sig. (2-tailed)		.000
OCB	Pearson Correlation	-.228	1
	Sig. (2-tailed)	.000	

Table 4.7  
*Correlation among PA practice and OCB*

		<b>PA</b>	<b>OCB</b>
PA	Pearson Correlation	1	.383
	Sig. (2 tailed)		
OCB	Pearson Correlation	.383	1
	Sig. (2 tailed)		

Table 4.8  
*Correlations among CR Practice and OCB*

		<b>CR</b>	<b>OCB</b>
CR	Pearson Correlation	1	.261
	Sig. (2-tailed)		.000
OCB	Pearson Correlation	.261	1
	Sig. (2-tailed)	.000	

Table 4.9  
*Correlations among CR Practice and OCB*

		<b>RS</b>	<b>TD</b>	<b>PA</b>	<b>CR</b>
RS	Pearson Correlation	1	.379	.171	.156
	Sig. (2-tailed)		.000	.007	.014
TD	Pearson Correlation	.379	1	-.150	-.159
	Sig. (2-tailed)	.000		.018	.012
PA	Pearson Correlation	.171	-.150	1	.826
	Sig. (2-tailed)	.007	.018		.000
CR	Pearson Correlation	.156	-.159	.826	1
	Sig. (2-tailed)	.014	.012	.000	

# Trust Repair in A Cultural Context: Undertaking A Synthesis of Trust Life Cycle Through Critical Literature Review

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## Abstract

*Trust is an important source to develop business understandings and relationships. It also greatly affects social efficiency of business activities and transactions. Trust deficit is so prevalent in the society; thus, it makes practical sense to explore its connotations, roots, linkages and effects. The subject of trust is very broad, however, in order to capture possible research gaps and explore scope for future research, this study is limited to the level of examining mutual relationships among individuals at work places, and undertakes a critical literature review of the trust life cycle and trust repair process, examining empirical evidences with regards to trust, distrust, trust deficit and repair, seen through cultural lens. Some limited research has identified core underlying variables (related to cognition, affect, and behavior, called “expectation assets”) which are supplemented by social and organizational factors, which also influence trust related expectations, and also influence the restoration and enhancement of trust. Research studies also highlight the relationship of trust with culture, with dominating perspective being ‘etic’, which relates to the understanding that trust is a global phenomenon affecting across various cultural domains and its effects can be observed as well as measured across cultures. Whereas, from an alternative ‘emic’ (culture-specific) perspective, though trust is a global phenomenon that cuts across all functional domains of a society, however, numerous differences exist that need to be considered while deciding trust levels as well as their intensity within a social setting.*

**Keywords:** Trust; distrust; trust violation; trust repair; cultural context.

**JEL Classification:** M1, M12, M16

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## 1. Introduction

“For any theory of organizational trust, the devil is in the detail, and the details are in the context” Technological and socio economical changes and disruptions are becoming a great challenge for the contemporary organizations, while giving rise to the feelings of uncertainty and anxiety among employees as they are feeling vulnerable especially since Covid-19, (Kähkönen et al., 2020). In the post pandemic era trust repair amongst the employees and employers has gained utmost importance as the restructuring and downsizing is prevalent, leading to the interest and requirement as to how to achieve trust among various elements of organizations while work environments are becoming more and more complex. While working on the principles of sustainability, trust provides many benefits to the employees and their organizations; enhancing employee cooperativeness, effective problem solving and knowledge sharing. Literature on the subject of trust has significant research volume built over time and has established scholarship. It is a dynamic subject and very much relevant to everyone at different levels, whether at work, individually or collectively, culturally or socially. Trust plays a pivotal role in all sorts of business settings and any harm to its sanctity can adversely affect efficiency and efficacy of economic engine of a society (Bachmann & Zaheer, 2013). Anecdotally, one can comment that trust deficit is much prevalent; hence, it makes practical sense to explore its connotations, roots, linkages and effects. This is a broad subject, but in order to capture possible research gap or set a research scope, it has been limited to the level of work relationships at individual level, specifically the element of trust deficit and repair, seen through cultural lens.

Mayer et al. (1995), while proposing a trust model involving trustor and trustee, suggest that trust is formed by trustor’s perception of the trustee as well as the ability of the trustor to cultivate his faith in the trustee. The decisive ingredients of trustworthiness are assumed to be integrity, ability and benevolence of an individual (Ashleigh et al., 2012), A trustor’s eagerness to trust and on the other hand a trustee’s willingness to uphold trust are the basic fundamentals for trust to take effect between both the parties. In another model, trustworthiness between two parties is assumed as the willingness of trustor to be vulnerable to the future actions of a trustee and is a function of prevalence of socially accepted norms on mutual trust (Baer et al., 2018a)

Lewicki et al. (2006), comment that despite theoretical progress in explaining the conceptual linkages of trust, yet efforts to measure trust and its elements have lagged, also trust research has been focused in its measurement as a onetime “snapshot” studies that provide limited insights into ever changing nature of trust and its related antecedents. This very fact caused decline in trust growth over time in the context of interpersonal relationships.

Trust is inherently context-bound concept (Bachmann, 2010), where context means e.g., industry-specific conditions, country-specific environment, implying trust quality, its nature

and consequences vary in context to regional and national settings and happening. Hence nature of trust could systematically differ across cultures (Zaheer, 2006).

There is no denying the fact that trust is a fundamental bulwark for cultivating and maintaining human relationships for effective working outcomes, because trust deficit always has negative consequences both for individuals as well as organizations. Despite the importance of trust, its violation has not been studied in-depth, in terms of both short-term (verbal statements) and long-term (structural rearrangements of relationships) strategies in a cultural context, which can address the issues related to measuring trust in more effective manner, since trust is not directly observable and is rather inferred.

### **1.1 Research Objectives**

This study entails to undertake an in-depth examination of the existing research encompassing the domain of life cycle of trust vis a vis trust healing and repairing process (defining trust itself, why people trust each other, studying that how trust gets broken, how trust violations are attributed and what does it mean to repair and what it takes to regain the trust confidence. It would also involve discussing trust repair strategies, which in turn opens the avenues for future research. The study focuses on measurement from actor and victim's perspective (with respect to trust), from different cultural setting i.e. (applying a cultural lens).

### **1.2 Methodology**

This study relies on the analysis of the secondary data, in terms of a critical analysis of the research literature gathered on the subject, keeping in view research objectives coupled with relevant keyword searches (trust, distrust, broken trust, trust repair, context, interpersonal trust, cultural context of trust, etc.), and referring to research studies of key trust scholars, trust related papers in high impact factor journals and several handbooks on the subject, edited by key trust scholars. Johnson (2017) quoting different studies such as (Andrews et al., 2012; Smith et al., 2011) has termed critical literature review as an effective approach in inquiry, when a huge amount of data is being collected and collated while existing data is also being widely made use of. Further, relying on secondary analyses of large datasets (e.g., past research studies) provides a mechanism for researchers to review and analyze existing research and address important research questions, which otherwise could be very expensive and time-consuming to study.

In order to enhance the reliability of this study, a critical literature review is undertaken focusing on a judgment structure, by evaluating the theoretical background of the research papers, their assumptions and one that provides a logical structure of the paper, for better evaluation (Gheondea, 2015).

## 2. Literature Review

“Vertrauen ist der Anfang von allem” (trust is the beginning of everything)-Deutsche Bank. The subject of trust has assumed a pivotal role in the overall existence and functioning of an organization. In past empirical studies, it used to be treated as a mediating variable, a variable of secondary interest, but gained importance in 1990s, as a subject important in its own right. A number of books have covered this subject in more general terms, such as, problems related to trust with respect to personal interactions, and exploration of diverse determinants of trust and its benefits, in addition to the strides made on the theoretical front as well. Despite impressive progress, many questions regarding trust still remain unanswered in terms of its origins and foundation, as well as causes for its shortfall in relations, i.e., trust decline (Kramer, 2006a).

Trust has been characterized in diverse ways in organizational sciences and is a point of active discussion for the social science experts and practitioners, especially with respect to leadership behaviors (Banks et al., 2018), but till to date a universally accepted definition of trust remains elusive. Seppanen et al. (2007) in the course of their review came across about 70 definitions of trust. The spectrum of its definition at one end classify its ethical and moralistic facets, Hosmer (1995, p. 399) defines it as “ethically accepted behavior, a decision morally correct, or socially acceptable actions.” Burt and Knez (1995) simply defined it as, “anticipated cooperation”.

Other theorists argue; trust is basically one’s psychological state of mind linked to several interrelated cognitive processes and orientations (Campagna et al., 2020). Other prospective definitions interpreted that trust in fact is a general expectancy about the future attitude of others and has a lot of bearing on the social system to which the trustor and trustee belong to (Luhmann, 1988). With regards to cognitive components of trust, other researchers argue that trust should be assumed as one of the complex psychological phenomena or states of mind that invest its stakes on others’ behaviors (Kramer et al., 1996). Cognitive models provide necessary understanding of trust-related phenomena, but not sufficient enough to explain future attitudes and emotional responses of others, more aptly put as, “one not only thinks trust but feels it as well”. (Fine & Holyfield, 1996). to sum it up, in terms of broad definition of trust, it entails rational account, and degree of knowledge including possible incentive about the trustee that can enable an individual to ultimately trust the other person Hardin (1992, 2002, p. 189) fittingly states, “you can more confidently trust me if you understand my interests whose fulfillment shall help me to live up to your expectations Bedi (2020)”.

Hence, it’s mandatory that one’s trust should encapsulate the interests of the trustee too. However, how a person finally decides to trust others needs to be questioned on many grounds and criteria, which cannot be quantified empirically. Few of the researchers prioritize social norms while others give precedence to ethics and values (Bush et al., 2020). It



is cognitively too narrow leaving any room for the emotional or social perspectives to have some bearing on the trust decision-making process. Thus, researchers have emphasized that the decision to trust someone should not be entirely based on risk calculations rather it should also encompass the interests of others and society as a whole (Kramer, 2006a). According to Hardin (1992, 2002) trust decision is based on, the “personal attributes of the person imposing interest, a trustee, and the contextual realities upon which a trust is based”. It becomes an even more complex and special point of concern in a working group environment (Breuer et al., 2016).

Dietz (2011) refers to different scholars quoting different types of trust: ‘contract trust’, ‘competence trust’ and ‘goodwill trust’ (Sako, 1992), ‘deterrence-based’, ‘calculus-based’, ‘knowledge-based’ and ‘identification-based trust’ (Lewicki & Bunker, 1996), each has their distinct roots, but commonly emphasize the fact that people use various forms of trust while interacting, dealing or socializing with people. Dietz (2011), argues that these are not necessarily types of trusts that differ from each other rather they vary in substance and context in which they take place. He categorizes this fact as; “the virtual goodness of beliefs of the trustee, a decision, a risk-taking act (a preparedness to be vulnerable), feedback on the outcomes, creating a trust’s cyclical dynamic”, thus he argues that fundamental reasons/ circumstances of imposing trust may differ, however, the process remains the same, which he classifies as universal dynamic, common to all trust encounters. Figure 1 shows a depiction of the trust process (Dietz, 2011).

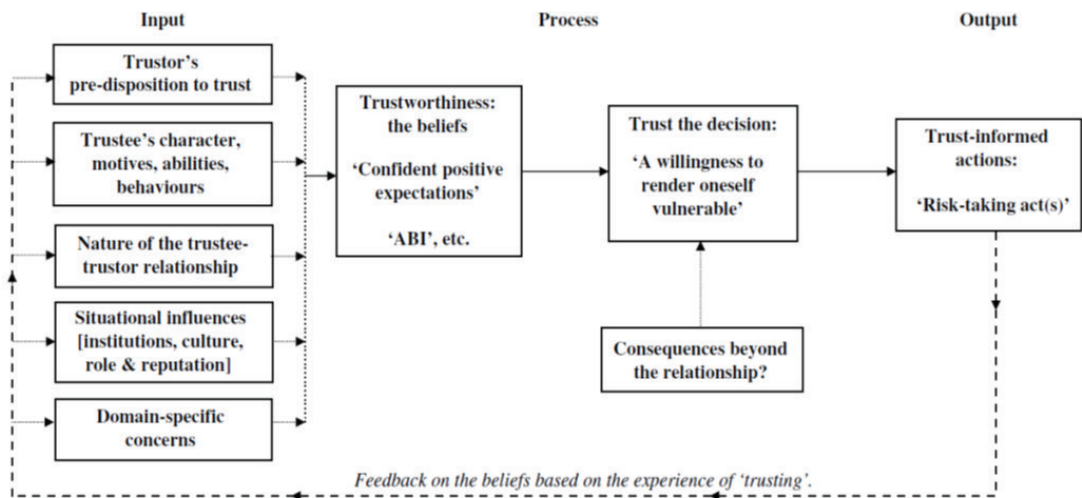


Figure 1: A depiction of trust process

Dietz (2011) hypothesizes that ‘situational parameters’ and the sources of interpersonal trust are in fact loosely bound in a way that the former may undermine the latter. According to Weibel (2003, p. 668): the institutional framework has a direct bearing on interpersonal trust, however, the quality of social interaction is not considered subservient to the institutional arrangements. While making someone to trust, we undertake various resources, however, given regulatory constraints and cultural sensitivities our options always remain limited. He argues whether is it possible for the researcher to know why people actually trust each other. To what extent? And on what basis? A subtler and more appealing quality of examination of what shapes trustor decisions and actions would greatly expand our understanding of this very puzzling construct, when attention is paid to their resource evidence and a trustee’s qualities with regard to his/her perceptive influences.

## 2.1 *Trust and Distrust*

Scholars in management have treated distrust as a related, but distinct and important construct from the trust, because of its diverse perspectives in most of the available literature. Distrust on the other hand has faced resistance in assuming meaningful existence to its construct generally put forth by academics (Guo et al, 2017). Research studies show that great efforts have been made to distill and synthesize trust out of various research works undertaken on this subject (Fulmer & Gelfand, 2012; Kramer & Lewicki, 2010), but the research evidence adding on organizational distrust still lacks coherence (Jong et al., 2016). Distrust has been associated with a large number of organizational issues, like revenge, organizational control, transaction costs, and cognitive processes (Guo et al., 2017). The study by (Fulmer et al., 2018) is quite relevant in this regard. In the available literature, there are two main perspectives on distrust: ‘distrust as a behavior’ and ‘distrust as a belief’. Tempered information is considered to be the main contributory factor to the existence of distrust such as: increasing controls and monitoring (Walgenbach, 2001), looking for backup (Dunn, 1988), reducing compliance (Rafaeli et al., 2008), or avoiding business transactions (Cho, 2006). Relevant works on the subject generally emphasize that the expectation to accept unacceptable actions of the other party is considered the main trigger of distrust. Such studies are accountable for distrust on a standalone basis without showing any concern for trust (Connelly et al., 2012). These studies make use of distrust being a basic construct without making any explanation of the differentiating facts between distrust and low trust. Notwithstanding the above, few academic works have discussed the comparison between trusting and distrusting beliefs. These works to a great extent have proven that distrusting beliefs are a function of other person’s psycho-motive state of mind, which includes: value incongruence, suspicion or cultivation of some ulterior motives (Fein, 1996; Fein & Hilton, 1994) and (Campagna et al., 2021). Distrusting beliefs are mostly rooted into general/perceptive value inconsistencies, whereas, trusting beliefs draw their strength from proficiency and competence of the resource being trusted (Sitkin & Roth, 1993). Distrusting behavior and beliefs are in fact married to the cause-and-effect phenomenon of organizational distrust.

In any organization or work environment, employees' distrust leads to low contribution e.g. attendance/performance, greater turnover, and lowered job satisfaction (Dirks & Ferrin, 2002). It also results into low/short retention as well as reduced promotion resultantly yielding less qualified and less competent employees occupying elevated positions for more responsible jobs, which creates leadership vacuum (Rousseau & McLean Parks, 1993), more importantly it gives birth to grievous communication gap, which may create many complications within the organization (Muench, 1960). Distrust can also result in worsened organizational productivity (Sparrowe et al., 2001). But distrust has its positive effects as well as, Lehmann (1979) interestingly maintained that for the promotion and expansion of trust; existence of distrust is essentially required. A few other studies have also rendered credence to some of the positive effects of distrust (Lumineau, 2017); Lewicki et al. (1998) have established through their observations over the time that distrust if exercised with prudence, creates conducive environment for the functioning of a group, to create economic discipline and efficiency. Trust and distrust must go hand in hand on the basis of strategic working elements with a purpose of achieving appropriateness in organizational decision making, (Zhang et al., 2021) have also presented interesting insights on this important facet on inter organizational trust especially where shared economic ventures are undertaken.

The elements of trust and distrust are mutually exclusive; therefore, trust determinants act as antidotes to distrust. Schoolman et al. (2007) state that "given that trust and distrust are two oppose entities, there would be hardly any value in treating them as distinct constructs". This is also endorsed by McKnight and Chervany (2001), who submits that the concept of distrust is specified as a unique and separate form of trust, thus proving that trust and distrust are mutually exclusive but operate and function simultaneously. But at the same time, they emphasis more clear and consistent conceptual demarcation and definitions for both trust as well as distrust, and present typologies of both terms to aid the practitioners.

The Handbook of Research Methods on Trust (Lyon et al., 2012), has shed further light on the subject bringing into discussion constructs of mistrust and repair. In terms of the consequences of trust, individuals expose themselves to risk or over-trust, leading to, in a sense, trust violations (Lewicki & Bunker, 1996; Dirks et al., 2009). The authors of the handbook based on research on the subject assert that although there have been consecutive studies on the repair of trust violations, but only limited insights could be drawn from such studies due to lack of longitudinal data gathering.

Grovier (1994) defines distrust as, 'a reduced measure of confidence in an entity, may be an individual or a group, and expresses an anxiety about the party in whom the trust is imposed may act so as to harm one, or intends to act harmfully' (Holtz et al., 2020) have undertaken a dedicated study in this regard about the risk assumed by the subordinates as they impose trust in the leadership. Suspicion on the other hand has been recognized as central component of cognitive activity leading to distrust (Deutsch, 1958) and is recognized as

a psychological makeup/state of entertaining and endorsing various patterns of rival thinking about the intentions and sincerity of others' behavior. (Fein & Hilton 1994, p. 168). Lewicki et al. 1998, have proposed a unique framework for understanding the dynamics of trust verses distrust operative in a relationship. Fundamentally treating the two as separate dimensions, trying to segregate their research from earlier researches treating them as one dimension. Thus, proposing coexistence of trust and distrust, basing their conclusions drawn from social science research which classifies both positive-valent as well as negative-valent attitudes being separable and distinct but coexisting.

Thus, hypothesizing that in social relationships selective aspects may be classified and characterized as trusting or distrusting while such degree of imposing trust or distrust are mutually exclusive and subjective in nature. They argue that the two elements are present in all social systems, and are functional equivalent (Luhman, 1979) and add that from an overall social structure stability point of view, there exists a balanced amount of both trust and distrust maintaining a state of equilibrium or a surface tension supporting the existence of confidence. Thus, an increase in one above the other can do more harm than good. The authors propose an exploration of simultaneous trust and distrust in relationships in more detail, when either distrust is suppressed or trustworthiness is dismissed, pointing out white color crimes, and where there has been lack of monitoring of trusted employees, leading to possible deception. Thus, the strategy of unconditional trust could be very harmful in the maintenance of social relationships and needs to be balanced with some dose of distrust.

## 2.2 *Trust Repair*

Due to high transaction costs, the trust between employees and other organization players is crucial, but despite the benefits associated with trusted work relationships, trust violations are very common. This leads to lowered employee commitment towards organizational objectives, reduced citizenship behavior and gives rise to turnover (Robinson, 1996). It generates further negativity in terms of resentment, anger, and hostility which lingers well after the violation that ultimately amounts to employees' distress and anxiety affecting their productivity and performance (Gillespie & Dietz, 2009). In the light of foregoing negative effects of tempered or ruptured employees' trust, which also later affects interpersonal relationships; there is an increased concern of management and academic scholars as how to repair and restore trust after the commitment of certain transgressions (Tomlinson & Mayer, 2009; Kramer & Lewicki, 2010).

Kramer and Lewicki (2010) state that organizational scholars agree about different benefits trust accrues for the functioning and performance of an organization. At the same time, recent events and global scandals point towards prevalent deficits in trust, which is also supported by research in this area. Authors have proposed two-pronged approaches to address this major issue. First, approach damage trust repair relying on organizational

theory and existing trust-repair research, and then within the organizational setting, define trust repair and assess reasons and circumstances being a source of broken trust. Subsequently focus on how trust can be enhanced, made stable and sustainable. The authors then look into the daunting challenge of how the damaged trust can be repaired. But also point out that just repairing the trust is not enough until it can be made secure and more resilient. Thus, there is a need for a more conducive environment for trust enhancement and maintaining it. The road to this, researchers claim, lies in making headway in explicit and precise conceptualization of trust and its foundations.

Numerous scholars have analyzed and synthesized the varied definitions of trust, focusing on the core element of the positive role of social expectations to understand the foundation of trust. They have then derived the variables classified as cognitive, affective, and behavioral factors (with regards to expectation, termed as “Expectation Assets”), which are supplemented with social and organizational factors to complete the trust repair model. And in conclusion; winning employee trust within an organization requires creating a conducive environment that allows employees’ development and career progression. The environment should further facilitate employees to cultivate favorable expectations about peers and other staff members’ motives and competencies.

### **2.3 *Trust Repair (Current View)***

Kähkönen (2020), claims that although theoretical trust repair models are developed, these are much oriented toward individual levels, and there is a lack of empirical evidence with regard to intra-organization restoration of trust. The available academic evidence merely focuses on specific issues (e.g., fraud, scandals, and data manipulations, Lewicki et al. 2016). It is based on simple laboratory experimentations meant to measure differences among a few of the known trust repair practices, whereas, there is the limited research evidence on the matters of benevolence or competence trust violations. This research, therefore, looks into the possibility of applying certain managerial and leadership practices aiming to restore mutual trust by proposing a process model, which takes into consideration several past theoretical views based on: social exchange theory, attribution theory, and social equilibrium. Dirks et al. (2009) have studied the sum total effect of these three aspects as part of a process model for the purposes of trust restoration.

### **2.4 *Trust and Culture***

‘Trust is one of the most important synthetic forces within society.’ (Simmel 1950, p. 326) (Zaheer & Zaheer, 2006) state that research conducted cross-culturally may be undertaken with respect to ‘etic’ (Culture-General) point of view, which assumes trust as being one of the global phenomena having its existence in almost all sorts of cross-cultural exchanges that can be observed, measured and compared employing appropriate measuring tools.

Whereas, from an alternative 'emic' (culture-specific) perspective, it is believed that though trust may be an important global phenomenon affecting all human beings (Schwegler, 2006), however, certain differentiating aspects have to be considered, especially with respect to the degree and intensity of imposing trust (Dyer & Chu, 2003).

Wright and Ehnert (2010) have recognized the fluidity of trust, and have questioned the very notion of trust, and used trust as one of the constructs in their study while trying to make a sense of cross-cultural trust. They have conceptualized trust as one of the social constructs, which has culture-specific contextual bearings, such a concept sets aside any belief of trust being an event or a state. Authors believe that trust is an ongoing natural process, which may not be halted or interrupted for the purposes of measurements. Baer et al. (2018a) have given an interesting discourse in their study on the subject of, "social influences on the trustworthiness of individuals" and they are of the view that the environment and culture that bring up an individual do affect their trust or distrust worthiness. Therefore, a careful study of foreign cultures is important by any trustee before imposing trust in an individual coming from dissimilar cultures.

From a constructionist's point of view, what matters most is the fact that how trust gets its roots between two mutually trusting bodies (trustor and trustee)? And how it gets into snow balling process? Trust manifestation between two entities is a complex process of mutual consenting rather than being a mechanical switching (Weick, 1995). Trusting and distrusting is a lifelong process among human beings. Demonstration of trust or its degree of existence is difficult to measure as it's not a stable being, tangible or physical in nature, which could be measured in some quantitative manner. Any attempts or claims to measure the existence of trust amounts to over simplification of the phenomenon. Möllering et al. (2004). Among a host of considerations, that influence a group of human beings' culture is the most prominent factor which is ever present and most dynamic in nature. On the other hand, the consideration of trust as a bipolar dimension is too narrow and is contextually irrelevant to any useful representation of the trust phenomenon.

The questions that we seek answers with regards to cultural perspective of trust would include; do development, functioning and meaning of trust coming from varying cultural backgrounds differ? Ferrin and Gillespie (2010) conclude on the basis of theoretical evidence that it does and have quoted empirical evidence in the support of their conviction. They claim that in different aspects of trust, their research has established existence of differences across the cultures especially in terms of generalized prevalence of trust.

Their research supports that mean level of trust, determinants (social, economic, environmental etc.) and consequences (allegiance to human rights, democratic values, and global responses in terms of the supportive and motivating attitude of one's supervisor) of trust, underlying purpose of trust and trust perceptions differ across cultures. They have

frequently established this across a number of countries employing various methods and measures of generalized trust. However, these researchers have classified the findings, as preliminary because there is lack of replicative research to give more credence to the results. The authors further add that these studies present primary evidence that across almost all cultures certain dimension and perception of trust as well as trustworthiness does exist. At the same time, however, in aggregate these studies also prove that some facets of trust/trustworthiness are culture specific. This study as its outcome presents, that there is a universal application of integrity, trustworthiness, ability and benevolence, however, their manifestations as well as interpretations are culture-specific in at least some of the countries.

### **3. Implications**

This study brings forth some very important implication especially for the organizational set ups or situations where people are expected to interact in groups or required to coexist as social entities per say. To put it in more academic terms, trust and distrust among individuals assume an important underlying reality, wherever, humans come together to form a system for mutual support and existence. To maintain the optimal health of such systems, extensive research emphasizes the necessity of acknowledging both trust and distrust, particularly for individuals expected to assume leadership positions. This serves as a guiding principle for their actions. No individual is above board of human limitations and distractions and no one can therefore, be blindly trusted or distrusted. It is therefore, important to understand that to maintain a mutual confidence among the leaders and followers or the managers and the workers, the existence of a certain but proportionate level of trust and distrust is a necessity. A blind trust may lead to cheating by subordinate or commission of white color crimes by those who exercise power and authority. It therefore, implies that in any organizational or systemic human set ups, the need for check and balances across the board cannot be ruled out rather should be implemented as a divine law.

#### **3.1 Directions for Future Research**

A thorough preceding analysis of the available literature on the subject reveals an ongoing debate whether trust and distrust are one-dimensional or two distinct dimensions, which require balance (i.e., presence of both trust and distrust) to maintain an effective social system. Majority of the researchers agree to the proposition of two-dimensional existence of trust and distrust (Legood et al., 2020). There is a need to undertake more trust related studies on longitudinal basis rather than being contended with cross sectional studies only. And any such research should cover trust, distrust and repair simultaneously, over time.

Proliferation of diverse conceptualization of trust and its underlying assumptions, pose challenges in presenting effective trust repair models, and thus there is a lack of empirical evidence in support of trust repair. There is thus need to synthesis and crystallize diverse

conceptualization of trust and its foundational assumptions, in order to extract core factors and variables both directly related to positive expectations and contextual factors of trust. This direction has led to the development of a holistic view about positive expectations of trust relationships and trust repair, and development of an effective trust model which also supports trust enhancement which is sustainable post implementation of trust repair. This results in a more robust model of trust repair which has its grounding in the core theoretical principles associated with trust.

#### 4. Conclusion

The contemporary research on trust although important and relevant to the individuals and institutions, is too broad in its concept, thus some of the researchers understand that the theory in this field has still not formed and developed to present a prospective story along with its peculiar plot and characters. There is a huge proliferation of middle range theories regarding trust, however, any prospective theory encompassing organizational level trust still remains elusive and a point of concern for the researchers. Furthermore, though empirical evidence is rapidly emerging and accumulating, there is still lack of studies employing some comprehensive multi-level conceptual measures of trust that could bridge diverse understanding of trust with regards to socio psychological, economic and sociological perspectives (Kramer, 1999). This research has helped understanding the complexity of the subject of trust and has improved our appreciation about the wide range of benefits associated with trust as well as with a measured amount of distrust as highlighted above under the heading of limitations. Further study on trust especially in the domain of its organizational level existence and application should be conducted on longitudinal basis to draw further insights for the managers and team leaders, which could help them steer their organizations smoothly in the right directions to achieve their intended missions and visions.

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# A Moderated-Mediation Analysis of Supply Chain Efficiency, Flexibility, Integration, and Risk Management

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## Abstract

*The preparedness and stability of the defense-industry supply chains have been challenged by significant disruptions and risks that can be critical to national security. Despite increasing importance, limited studies have explored the underlying factors (i.e., efficiency, flexibility, integration, and risk management) impacting the supply chain operations of national defense companies. Hence, this study aims at exploring the relational impact of supply chain risk management (SCRM) practices and organizational performance by hypothesizing a moderated-mediation model involving operational efficiency, flexibility, and supply chain integration (SCI). Using the information processing theory, the survey-based data of 2017 respondents was collected from defense-related national institutions in Pakistan. Empirical findings based on structural equation modeling validated a significant positive SCRM Organizational Performance relationship. According to the findings, supply chain risk management is strongly connected to operational efficiency and flexibility. Additionally, the study also substantiates the mediating effects of operational performance (i.e., efficiency and flexibility), along with the significant moderation by supply chain integration in the relationship between risk management and operational efficiency. However, the results do not support the role of operational flexibility in mediating the relationship between SCRM and OP. Furthermore, the role of SCI as a moderator between SCRM operational flexibility was not established. This research is the first to introduce an empirically validated framework of supply chain performance in the defense industry, besides conceptualizing the direct and indirect roles of SCRM, efficiency, flexibility, and integration. This study also navigates some of the critical issues and obstacles faced by the national defense industry and highlights a holistic model that facilitates multistage supply chain decision-making.*

**Keywords:** Supply Chain Management; risk management; operational performance; efficiency; flexibility; firm performance; integration; national defense industry; information processing theory.

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## 1. Introduction

Supply chain activities are deemed to be an essential part of a firm's operations and are considered critical in achieving competitive advantage, especially in the global defense industry (Jeon & Yoo, 2019; Zsidisin et al., 2020). From procuring the raw material, managing the suppliers, and distributing the products and services, the firm's supply chain operations are a critical part of strategic management. In the present global era, where there is a competition shift from individual firms' operations to integrated supply chains, efficient supply chain management (SCM) is deemed to be necessary for achieving competitive advantage (Jeon & Yoo, 2019; Li, Nathan, Nathan & Rao, 2006). The contemporary business practices are dependent on the interlinked relationships within the firm and its stakeholders, driven by the challenges of shifting demands of the customers, seeking more flexibility and timely delivery of products and under increasing cost and budgetary pressures (Datta & Christopher, 2011). The integrated supply chains of companies and stakeholders not only provide a sustainable competitive advantage to the firm but also assure financial gains to the company (Gurtu & Johnny, 2021). Despite having positive prospects and promising impact, the supply chain practices and operations are prone to huge risks (Breuer et al., 2013). For example, a famous incident related to supply chain disruptions in Japan in 2011 caused by tsunami and earthquake, created economic fallout on local demand, and supply, as well as affected manufacturing firms across Europe and North America (MacKenzie et al., 2012). Similarly, COVID-19 pandemic crashed the economies of the all countries including businesses, enterprises and supply chains as well (Dohale et al., 2021). As stated by Aon Risk Solutions, supply chain disruptions have increased during the period between 2011 and 2013 from 28% to 42% globally, causing huge financial losses to companies (Sáenz & Revilla, 2014). In Covid-19 pandemic era, SCR increased at highest level, so that the survival of multiple economic sectors became a challenge (Yang et al., 2021). More recently, the current disruption in supply chains across the globe due to Covid-19 pandemic has again highlighted the importance of managing and mitigating supply chain risks (Dohale et al., 2021). Therefore, the need for managing and responding to such risks, particularly in the supply chain domain, has caught the attention of academicians and practitioners (Ghadge et al., 2012; Zhu et al., 2017).

Following the information processing theory (IPT), researchers have identified that the risk mitigation response strategies of the firm are significantly dependent on the information processing abilities (Fan et al., 2017). Literature highlights the need for efficient risk management of supply chains in achieving better organizational performance (Gurtu & Johnny, 2021; Manuj et al., 2014). Some of the studies have suggested that the implementation of the SCRM practices manage a firm's supply chain disruption that eventually result in improved financial performance (Dohale et al., 2021). Although the SCRM has been overwhelmingly studied to have its impact on operational performance, organizational performance, and financial performance with mediating and moderating impact of various variables (Manuj et al., 2014; Kilubi & Rogers, 2018; Munir et al., 2020; Shou et al., 2018; Thun & Hoenig,



2011; Kauppi et al., 2016; Lavastre et al., 2014; Yang et al., 2021), there is limited literature support regarding SCRM and organizational performance relationship with mediation of operational performance. Similarly, SCRM practices in relation to the performance of the defense institutions has been an under researched area as sufficient literature support is not available on the variables impacting the said relationship, though certain studies have tried to highlight the importance of SCRM in defense-related national institutions (Jeon & Yoo, 2019; Zsidisin et al., 2020).

Therefore, this study is an effort to fill this visible and potential research gap as it aims at examining the relation between SCRM practices and the performance of national defense-related firms. The study also postulates the intervening impact of operational performance measured in terms of operational performance (i.e. efficiency and flexibility). Furthermore, this study also aims to hypothesize the supply chain integration (SCI) as a moderator in the SCRM Operational Performance relationship. Our study focuses on the following research questions; a) Do SCRM practices positively impact the performance of the national defense institutions? b) Is SCRM and organizational performance relation mediated by operational efficiency and flexibility of defense institutions? c) Does supply chain integration moderate the operational efficiency and flexibility of defense institutions?

The contribution of the study in the literature and body of knowledge is twofold. First, it investigates the impact of SCRM practices on the performance of national defense companies, through the intervening role of operational performance (efficiency and flexibility). This association has previously not been explored specifically related to the national defense institutions (Jeon & Yoo, 2019; Zsidisin et al., 2020). Second, this study also postulates the role of SCI as a boundary condition in our model. Doing so will provide executives, managers, and practitioners with in-depth exposure to a new dimension impacting the supply chain operation thus helping them better plan risk mitigation and management strategies to counter the harmful impact of the risks while capitalizing on the positive risks. Consequently, the findings of our research will facilitate supply chain managers in the national defense industry to practice new and novel ways to curtail the adversities of uncertain and extraordinary supply chain disruptions.

## **2. Theory and Literature review**

### **2.1 *Information Processing Theory***

Information processing theory states that the capability of an organization to process information and to deal with uncertain environments leads toward higher performance outcomes and thus firms must align their capabilities with their strategies (Galbraith, 1973). Therefore, supply chain risk management and integration strategies can act as systems of information processing for achieving higher performance outcomes (El Baz & Ruel, 2021;

Fan et al., 2017). In line with these researchers, we also take the theoretical lens of information processing in order to investigate the relationship of supply chain risk management and firm performance with the mediating role of flexibility and efficiency and also the moderating role of supply chain integration.

## **2.2 Supply Chain Risk Management**

Supply chain activities, if managed well, add value to the core processes of the organizations and ensure customer satisfaction and competitive advantage (Afraiz et al., 2021). Risk in supply chain is described as anything which disrupts any function of the supply chain (Rao and Goldsby, 2009). Similarly, risk management has been described as a set of activities followed by the organizations to manage the adverse effects of the factors causing disruptions in the supply chain (Rangel et al., 2015) proactively even when it is difficult to predict such risks in advance.

These risks might bring unpredicted negative impacts on business transaction variations including negative impacts on market share, profit, cost, and revenue. It consequently results in a negative performance of the organization (Wang, 2018). Supply chain risk (SCR) has the potential to expose organizations to losses both in the short or the long term. It might also affect the upstream and downstream relationships between different actors in the supply chain. Therefore, organizations are required to develop strategies and practices to minimize the risks hidden in supply chain disruptions, and the supply chains should be redesigned to reduce such occurrences in the future. SCR should be taken as seriously as the financial risks (Bode & Wagner, 2015).

Shou et al. (2018) explored the two types of risks for supply chains, namely a) disruption risk and b) risk in the coordination of demand and supply and found that both adversely impacted the organizational performance. Literature also highlights that complexities in the supply chain coupled with the uncertainties in the environment enhance the vulnerability of the firm to risk (Bode and Wagner, 2015). It is also discussed that it is not only the risks that introduce a firm to losses but also the mitigation of risks requires additional cost (Shou et al., 2018). In such cases, organizational performance is adversely affected. SCRM practices help organizations mitigate losses by applying various risk prevention and control methods.

Rangel et al. (2015) define five steps of SCRM including 1) identifying risks; 2) assessing these risks; 3) risk management; 4) monitoring the risk; and finally, 5) the transfer of knowledge related to SCRM. All these steps help organizations reduce the supply chain vulnerability to risks. Foli et al. (2022) defined SCRM in three steps which include 1) identify the risk 2) assess the risk 3) implement the strategies to mitigate the impact of risk. It has also been highlighted that risk detection, responding to risk occurrence, recovery, and risk prevention are different SCRM practices (Shou et al., 2018) and that these practices must be

considered a routine exercise used by the organizations to collect and utilize supply chain information.

### 2.3 *SCRM and Firm Performance*

Supply chain risks, complexity and uncertainty have become the main area for academic research (Wang, 2018) due to sudden global level catastrophes like earthquakes, floods and pandemic. Targeting superior performance and managing the risks and uncertainties in supply chains require organizations to collect and process maximum information (Shou et al., 2018). The difference between the required information for the completion of the task and acquired information indicates the uncertainty involved in this process. Supply chain information includes information related to monetary issues, procedures, market situation, technology, quantity, quality, logistics and inventory (Fan et al., 2017). However, despite established importance, the availability of information related to demand, and supply is volatile, multifaceted, and unclear. Fan et al. (2017) also found that SCRs do not have any sequence of occurrence, it may happen at any time in a random pattern, without any connection to previous instances and can occur continuously. This can result in an adverse effect on the firm's performance and thus it is important to manage such risks.

Some researchers have proved that SCRs put a negative effect on organizations' supply chain activities for example logistics (Simangunsong et al., 2012; Gimenez & Ventura, 2005; Sanchez Rodrigues et al., 2010). While, Saminian Darash and Rabinow (2015) proposed that these factors are capable of boosting the organizations' performance, on the contrary, some researchers like Merschmann and Thonemann (2011) reposted lack of any such relationship between SCR and organizational performance. However, the majority of the researchers agree that with better risk management activities, such risks can be mitigated and thus performance is enhanced. In past, researchers focused on manufacturing-focused organizations (Shou et al., 2018) and the logistics service organizations (Wang, 2018).

Based on information processing theory, to reduce uncertainties and maintain stability, firms with substantial risk management capabilities can choose to reduce the gap between the information required and information possessed for implementing the risk management strategies so that they can prevent, respond, and restore from the unanticipated disruptions to the original state or even improved state with higher performance. Our research paper investigates the effect of SCRM practices on the performance of national defense-related institutions and we propose, by using the theory of information processing, that national defense related institutes can enhance their financial performance due to better management of supply chain risks; hence, leading to the following hypothesis for the study:

*H1*: Supply chain risk management has a significant positive relationship with the firm performance of national defense-related institutions.

## 2.4 *Operational Flexibility and Efficiency*

Manufacturing operational flexibility refers to the potential of any organization to handle the environmental uncertainties and risks (Merschmann & Thonemann, 2011). Patel et al. (2012) refer manufacturing flexibility to be the transforming capability, from one product to another, of the company by using consistent policies to respond to the market volatilities. Although operational flexibility is a broader concept, strategically speaking it can be explained as an organization's ability to be responsive to the sudden changes in the supply and demand. It is the ability of the company to change key supply chain processes quickly (Merschmann & Thonemann, 2011). The risk management abilities augment operational flexibility with the aid of integrated systems to resolve various information-related risks and issues (Shou et al., 2018). To remain competitive in a dynamic and an ever-changing environment, organizations need to adapt to customized requirements by adapting operational flexibility and supply chain flexibility (Patel, 2011).

Manufacturing operational efficiency is related to quality, functions, stability, and a controlled environment within the organization. Organizations become more efficient through such strategies that lower operational costs to obtain higher returns. However, the efficiency and performance of national defense-related manufacturing organizations are not in terms of profits or returns. The operational efficiency of an organization depends upon the routines, practices, and capabilities of that organization (Lam et al., 2016). The factors responsible for uncertainties and risks in the supply chain and operational processes are handled by applying SCRM practices.

## 2.5 *Operational Efficiency, Flexibility and the SCRM*

SCRM enhances the operations and performance of organizations through responding to the changes in a quicker way thus diminishing operational losses (Thun & Heoning, 2011; Manuj et al., 2014). This study explains the performance of the operations in two aspects: operational flexibility and operational efficiency. Generally speaking, supply chain practices have a deep impact on the operational performance of the firms (Younis & Sundarakani, 2020). Supply chain risk management practices and techniques including information processing systems and integrated supply chain systems help an organization to reduce the ambiguity and volatility (Fan et al., 2017). An effective and integrated supply chain management is needed for attaining flexibility and efficiency in the critical operations of the firm (Kauppi et al., 2016) and it is also instrumental in meeting predicted demand and prescribed quality (Shou et al., 2018).

SCRM techniques prepare the organizations to be able to find and control such potential risks (Narasimhan & Talluri, 2009). The SCRM techniques also help organizations to avoid reprocessing and reduce errors by using improved information processing methods.

Moreover, these methods also improve efficiency and enhance delivery speed (Fan et al., 2017). Whereas, without using SCRM techniques or using poor management methods in supply chains may cause fruitless loss of resources and time as well. Such companies require extra efforts, more cost or time to tackle the problems whenever any occurrences like an interruption in the production process, delivery of services, or any instability in demand or supply. In such cases, there is no surety of any efficiency, either cost-based or time-based (Shou et al., 2018).

Previous studies focused on numerous features of organizational performance. For instance, Kauppi et al. (2016) studied organizational performance in five aspects, i.e. cost control, operational flexibility, order delivery, better customer service and higher quality. Shou et al. (2018) studied operational efficiency and operational flexibility as functions of operational performance in the manufacturing sector organizations. But previous studies of the organizational performance have ignored public sector firms, especially national defense-related institutions.

This study focuses on exploring the impact of SCRM practices on both operational flexibility and operational efficiency in national defense-related institutions. Shou et al. (2018) also suggested that firms can respond to supply chain risks through taking rapid decisions using the existing information (Shou et al., 2018). Defense-related public sector organizations face a lot of challenges and face risks in their daily operations. We argue that by adopting risk management strategies, defense related institutes can achieve better efficiency and flexibility in their operations. As per the tenets of information processing theory, such firms are successful in integrating the information with their risk management capabilities and thus achieve higher operational performance goals. Thus, we propose our second hypothesis considering the above arguments:

*H2: SCRM has a significant positive relationship with the operational performance i.e.(a) efficiency, and (b) flexibility in national defense-related institutions.*

## ***2.6 Mediating role of Operational Efficiency and Flexibility***

A firm's operational performance (flexibility and efficiency) are considered to be critical factors both for improving the organizational performance and for ensuring supply chain efficiencies. Due to these capabilities, firms can offer products and provide services at a cheaper price with a short delivery time (Kortmann et al., 2014). Researchers have highlighted that speed and quality of product and service delivery is directly proportional to the higher returns, profitability, and financial growth of a firm (Vickerya & Marklandb, 1997). In a study by Elgazzar et al. (2012) the influence of various variables relevant to the supply chain including cost, responsiveness, and agility were studied in relation to the financial performance variables including sales and return on assets etc. and were found to be relevant.

Similarly, Yu et al. (2012) explored the impact of operational performance and concluded that firms can improve their end-user satisfaction and performance through dropping the costs associated with delivery and service provisioning and also through improving the quality of their products. Some other studies discuss the impact of efficiency and flexibility on financial performance in manufacturing firms (Shou et al., 2018). Higher efficiency and better delivery time can positively impact a firm's market share and its overall performance (Droge et al., 2004). It can further enable firms to complete the delivery through efficient logistics operations to further improve the performance (Liu & Lai, 2016).

Lam et al. (2016) argue that operational efficiency depends upon the capabilities and routines of the organization. These capabilities and routines not only manage and control the harmful risks that occur but also improve a firm's performance (Narasimhan & Talluri, 2009). But achieving such operational efficiency and flexibility is difficult due to several external and internal risks inherent in the supply chain operations (Ebben & Johnson, 2005). To reduce such losses, different techniques, like, prescribed procedures, contingency planning and buffering strategies are used that ensure the development of a dependable atmosphere in the firms which help boost efficiency by reducing lead time and operational costs during operational activities (Ebben & Johnson, 2005). Hence, organizations performing with increased efficiency and flexibility ensure higher organizational performance. Therefore, the third hypothesis was developed as follows:

*H3:* The relation between SCRM and organizational performance in national defense-related institutions will be mediated by (a) operational efficiency, and (b) operational flexibility

## **2.7 Supply Chain Integration**

Literature suggests that competing effectively in the global market requires organizations to adopt a supply chain integration (SCI) strategy (Bae et al., 2021; Zhao et al., 2008). This external as well as internal integration enhance product development, innovation and improve customer service processes, which consequently increase the performance of the organization (Ralston et al., 2015). Different studies have proposed various definitions of SCI. Some studies explain SCI as uni-dimensional, collaborative relationships of an organization's supply chain with its suppliers or customers (Paulraj et al., 2008; Cousins & Menguc, 2006), whereas other studies assert that SCI is a dyadic relationship between supply chain partners. Similarly, some researchers explained SCI as a flow of parts and materials, whereas others explained it as finances, resources, and information flow. But all the above definitions fail to explain completely the concept of SCI with its strategic nature (Flynn et al., 2010). SCI is used for close coordination within the supply chain. An integrated MIS system makes the SCI fruitful process (Alzoubi et al., 2022). In a study, Zhao et al. (2008) explained supply chain integration holistically as "the degree to which an organization strategically collaborates with its supply chain partners and manages intra- and inter-organization processes in

order to achieve effective and efficient flows of products and services, information, money, and decisions with the objective of providing the maximum value to the customer at low cost and high speed” (Zhao et al., 2008, p. 374). Thus, this construct has been proposed and tested with 03 dimensions namely: the customer, the supplier, and the internal integration (Alzzoubi et al., 2022; Bhattiaa & Ali Bhattia, 2019; Zhao et al., 2013). Internal integration is explained here as an integrated process where different sections or departments in an organization can play their role towards a common goal, whereas, external integration refers to establishing a collaborative, integrated relationship with the customers and the suppliers.

## **2.8 *Moderating Role of Supply Chain Integration***

The effective coordination including smooth information sharing among the different actors involved in the supply chain operations is critical for a firm’s performance (Albishri et al., 2020). The previous literature confirmed a significant relationship between the SCI and efficiency of the organization in terms of cost and responsiveness (Bae et al., 2021). For example, some studies explain the bullwhip effect as a reason of customer demand having significant impact on inventories as you go along the supply chain. One reason behind the bullwhip effect includes the decentralization of the decision-making process. It causes the distortion that results in either a delay or misinformation in demand forecast moving upstream in the supply chain. Danese and Romano (2011) discuss the various strategies which help to diminish the bullwhip effect in supply chains. One of those strategies is operational alignment and sharing of information related to sales and demand data up to the final member of the supply chain. This method helps in mitigating the risks involved in supply chains and lowers the supply chain costs. These costs include transportation cost, order processing cost and inventory cost. The information sharing about the demand positively impacts a firm’s supply chain performance (Danese & Romano, 2011).

In the previous studies, most of the scholars studied different aspects of operational performance and its dependence on SCRM. For instance, Kaupi et al. (2016) studied five aspects of operational performance and their relation to risk management. Shou et al. (2018) examined two aspects of operational performance and their relation with SCRM. In a similar vein, SCI with its effect on different variables has already been discussed in past studies (Zhao et al., 2015), for example, its impact on customer service (Swink et al., 2007; Vickery et al., 2003), new product development (Petersen et al., 2005; Ragatz et al., 2002), operational performance (Danese & Romano, 2011; Swink et al., 2007; Cousins & Menguc, 2006), and logistical performance (Gimenez & Ventura, 2005). However, its effect on the relationship between SCR and the organizational performance in the national defense-related institutions has not yet been measured.

The basic features of an organization's supply chain integration are responsiveness and distinctiveness of system components (Bae et al., 2021). Some other characteristics include web-based integration systems, application software and electronic data interchange (Shou et al., 2017). Researchers have presented four functionalities of SCI, a) information sharing, b) system coupling, c) joint decision making and d) collaborative approaches. Information sharing increases the visibility of the products during transportation. They argued that it enhances the effectiveness of SCRM (Shou et al., 2018). Hence, reliable, and timely information sharing, both internally and externally, will induce greater relationship between SCRM practices and the efficiency and flexibility of the organization.

Previous researchers have found a significant relationship of SCI with organizational performance (financial and market) as well as operational performance in the manufacturing sector (delivery cost, manufacturing cost, flexibility, and quality) (Mackelprang et al., 2014; Leuschner et al., 2013). Our research postulates that SCI will play a moderating role between the SCRM capabilities and operational performance relationship in the national defense-related institutions. That is, in the presence of higher integrated supply chain (both externally and internally), the relationship between SCRM and operational performance will strengthen and vice versa. Therefore, we propose our next hypotheses as follows:

*H4a:* SCI has a significant positive moderating impact on the relationship between SCRM and the operational efficiency in national defense-related institutions in such a way that the relationship is stronger when supply chain integration is high rather than low.

*H4b:* SCI has a significant positive moderating impact on the relationship between SCRM and the operational flexibility in national defense-related institutions in such a way that the relationship is stronger when supply chain integration is high rather than low.

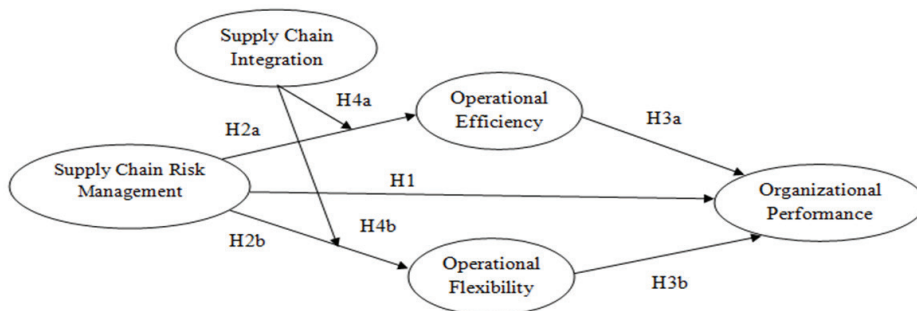


Figure 1: The Conceptual framework



### 3. Research design

A survey based quantitative approach, was utilized for data collection of the study. The data was collected from employees of defense-related national institutions in Pakistan. The organizations are performing different supply chain functions with procurement and logistics as the core functions. The selected employees are working with different designations in the supply chain departments in their organizations. Before the questionnaire's distribution for collection of data, it was reviewed by experts in the field for completeness, clarity, readability and structure. The questionnaire was delivered to 30 supply chain managers and supervisors working in different units of the selected organizations. After face-to-face discussions to gather their feedback, items which were not related to these organizations and had low outer loading were deleted. The questionnaires were then distributed to different supply chain managers and supervisors at different units within Pakistan. Some items calculated low outer loading which may restrict the study of the proposed hypothesis. These items were removed from the data for further study of the hypotheses (Hair et al., 2014).

According to Hair et al. (2014) the minimum sample size required is 10 times of the maximum number of formative indicators for a single construct or in the structural model 10 times of structural paths pointing towards a single construct. In this study the maximum number of indicators (i.e. 20 indicators) were used to study the moderating effect of SCI. therefore, the minimum sample size required for the study was 200.

Initially, the questionnaires were shared with 400 employees working in various national defense-related institutions by using non-probability convenience sampling. Out of 400, only 221 were returned completed. Received questionnaires were further checked for validity. After verification 207 were found to be valid for tests. The remaining questionnaires were rejected for being incompletely or wrongly filled in some way. The scale was comprised of two sections, the 1st section collected data about demographics including gender, qualification and professional experience of the respondents, number of employees and the age of the company. Section two consisted of 5 segments comprised of various research variables of the study.

#### 3.1 Measures

Supply chain risk management (SCRM) was measured using four items. The construct was adopted from Shou et al. (2018). Several studies have elaborated different dimensions of SCI. In this study, we considered three dimensions of SCI (Internal integration, customers and suppliers). This approach is fairly aligned with the early studies (Flynn et al., 2010). Seven items are related to customer integration, internal integration contains eight items and five items are related to supplier integration. Operational efficiency is the capability to deliver cost-effective products or services without compromising quality. It was measured

in terms of product or service quality, dependability, service level, etc. In this study, operational efficiency is adopted from Huo et al. (2014). It contained five items. Operational flexibility is the organization's ability to be responsive to the unseen situation of the market. It is the ability of an organization to handle the unanticipated changing environment. It had different dimensions such as mix flexibility, volume, material handling, labour, routing, machine and product customization (Shou et al., 2018), mix new product and modification flexibility (Koste et al., 2004). As this study is related to national defense-related institutions, in this study for measuring operational flexibility (volume, product customization capability and mix flexibility) we studied repeat customers, changes in customers' taste, regulations, new product and customer development. The four-item operational flexibility scale was adopted from Trkman et al. (2016).

Firms' performance scale included the process and product development, the lead time, and the yield expansion, etc. it was an adopted scale used by Rai et al. (2006). Similarly, the four-item customer satisfaction construct was adopted by Zhao et al. (2013), and these items were about customers' response about the products or services offered by the organization. Some items calculated low factor loading which may restrict the study of the proposed hypothesis. These items were removed from the data for further study of the hypotheses (Hair et al., 2014).

#### **4. Data analysis and results**

Due to single-source biases, Harman's single factor test was used to test common method bias (CMB). The CMB is calculated with a single factor to extract basis. The results of all the items showed the values within the threshold limits of the total variance, i.e., below 50%, which means that no bias existed in the data calculated for the study. There are two types of SEM i.e. Covariance based SEM (CB SEM) and PLS-SEM (Hair et al., 2014). In order to confirm or reject a theory CB-SEM is used. SPSS is one of the software which is used to study CB-SEM is SPSS. CB-SEM is used only to test the theory. However, it cannot determine the strength of the model. It is unable to estimate the covariance matrix for sample data. In this context, PLS-SEM also called PLS modeling helps the researchers. It is used to develop theories in exploratory research (Hair et al., 2014). There are many software used for this purpose. SmartPLS is one of the best examples to study PLS-SEM. In this study both applications i.e. SPSS and SmartPLS were used to test the data.

##### **4.1 Reliability and Validity Tests**

Cronbach's Alpha and Confirmatory factor analysis (CFA) were applied to test the internal reliability and validity of the data collected for each item. Initially, 20 items were measured for the supply chain integration variable. After the CFA analysis, items having values less than the threshold were removed from the subsequent analyses. So, in this study,

nine items were considered for measuring the moderating variable SCI. Similarly, two items out of seven of operational efficiency were also removed. Moreover, items measuring operational flexibility, customer satisfaction and organizational performance were also studied and verified, and the items having factor loading less than threshold limit were deducted. The results of the reliability analysis are presented in Table 1.

The composite reliability value was found more than 0.7 for each construct, while the factor loadings value was more than 0.5 of all the items, which exceeded twice the standard error of the item (Shah & Goldstein, 2006). Similarly, the values for AVE (average variance extracted) for SCRM, Operational Efficiency and Operation Flexibility were more than 0.5. Organizational Performance's AVE was 0.410 and for SCI it was 0.498. The value of AVE is acceptable if more than 0.40 (Menor et al., 2007). Moreover, the AVE estimates were all less than the Composite Reliability values (Hair et al., 2010). Figure II shows a detailed picture of the theoretical model with calculations through SmartPLS version 3 (Zaman, 2020).

Table 1  
*Factor loadings, reliability, and validity*

Construct	Items	Factor Loadings	$\alpha$	CR	AVE
Supply Chain Risk Management	“RM1 Preventing operations risks (e.g. select a more reliable supplier, use clear safety procedures, preventive maintenance)”.	0.810	0.799	0.868	0.623
	“Detecting operations risks (e.g. internal or supplier monitoring, inspection, tracking)”.	0.784			
	“Responding to operations risks (e.g. back-up suppliers, extra capacity, alternative transportation modes)”.	0.772			
	“Recovering from operations risks (e.g. task forces, contingency plans, clear responsibility)”.	0.789			
Organizational Performance	“Product delivery cycle time”.	0.579	0.726	0.804	0.410

*Table to be Continued*

	“Productivity improvements (e.g., assets, operating costs, labor costs)”.	0.560			
	“Precise knowledge of customer buying pattern”.	0.714			
	“Our customers are pleased with the products and services we provide for them.”	0.636			
	“Our customers seem happy with our responsiveness to their problems.”	0.741			
	“Customer standards are always met by our plant.”	0.588			
Operational Efficiency	“Overall product quality”.	0.791	0.752	0.834	0.502
	“Pre-sale customer service”.	0.637			
	“Product supports”.	0.685			
	“Responsiveness to customers”.	0.734			
	“Delivery speed”.	0.686			
Operational Flexibility	“Over time, we cater too many of the same customers”.	0.766	0.706	0.820	0.536
	“Demand and customer tastes are fairly easy to forecast”.	0.604			
	“Regulation strongly affects our market”.	0.737			
	“New customers tend to have product-related needs that are different from our existing customers”.	0.806			
Supply Chain Integration	“The level of computerization for our major customer’s ordering”.	0.700	0.873	0.899	0.498
	“The level of communication with our major customer”.	0.738			

*Table to be Continued*

“The frequency of period contacts with our major customer”.	0.707
“The establishment of quick ordering systems with our major supplier”	0.783
“The participation level of our major supplier in the process of procurement and production”	0.690
“We help our major supplier to improve its process to better meet our needs”	0.666
“Data integration among internal functions”	0.612
“The utilization of periodic interdepartmental meetings among internal functions”	0.696
“The use of cross functional teams in new product development”	0.747

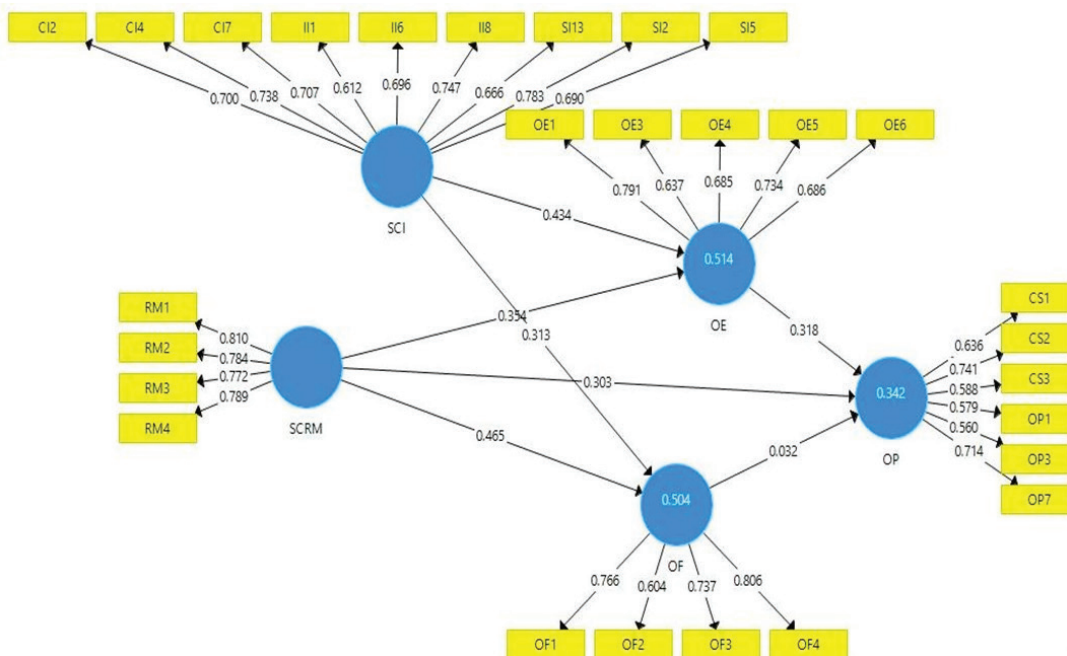


Figure 2: Theoretical Model with calculations through SmartPLS (source: Authors, 2020)

## 4.2 Hypotheses Testing

The test for Variance Inflation Factor confirmed the value to be < than 3.3 (Diamantopoulos & Sigouw, 2006) while the value for the tolerance was more than 0.2. VIF was calculated by using SmartPLS software (Zaman et al., 2019a) and shown in Table 2.

Table 2  
*VIF Value of all relations (source: Authors, 2020)*

Constructs	(1)	(2)	(3)	(4)	(5)
Operational Efficiency (1)			1.89		
Operational Flexibility (2)			2.034		
Organizational Performance (3)					
SCI (4)	1.742	1.742			
SCRM (5)	1.742	1.742	2.126		

Using SmartPLS, Heterotrait – Monotrait Ratio (HTMT) and the Fornell and Larcker's test were performed in order to obtain the discriminant validity (Zaman et al., 2020). The results of the Fornell and Larcker's test are presented in Table 3.

Table 3  
*Fornell and Larckers results for all variables (source: Authors, 2020)*

	OE	OF	OP	SCI	SCRM
OE	0.708				
OF	0.616	0.732			
OP	0.53	0.43	0.64		
SCI	0.665	0.617	0.489	0.706	
SCRM	0.637	0.669	0.527	0.653	0.789

Finally, in order to calculate the discriminant validity, using a partial least squares structural equation model, we calculated the HTMT. The values fell well below the acceptable threshold level of 0.90 thus ensuring the validity of data (Henseler et al., 2015). Table 4 shows the HTMT values of all variables.

Table 4  
HTMT Value of all variables

Constructs	(1)	(2)	(3)	(4)	(5)
Operational Efficiency (1)					
Operational Flexibility (2)	0.840	1			
Organizational Performance (3)	0.631	.676	1		
SCI (4)	0.800	.677	.673	1	
SCRM (5)	0.796	.477	.350	.474	1

The next step was to check the relationship between these variables. We calculated the correlation by taking a bivariate Pearson Correlation test by using SPSS version 25. Table 5 shows the correlation values between different variables. All the values show a positive and strong relationship ( $0.3 < r < 0.5$ ).

Table 5  
*Correlation of all variables*

Constructs	(1)	(2)	(3)	(4)	(5)
SCRM (1)	1				
Operational Efficiency (2)	0.617	1			
Operational Flexibility (3)	0.658	0.617	1		
SCI (4)	0.638	0.643	0.616	1	
Organizational Performance (5)	0.463	0.470	0.379	0.466	1

For testing hypotheses H1 – H2, SEM was used in this study. The test was performed by using SPSS 25 and SmartPLS software (Zaman et al., 2019b). Results of path analysis showing p – value along with standardized path coefficients are presented in Table 6.

Table 6  
*Results of Path analysis*

No	HYP	IV	DV	R Square	F	Beta	T	Sig	Path Coefficient
1	H1	SCRM	OP	0.214	56.125	0.481	6.913	0.000	0.303
2	H2a	SCRM	OE	0.380	126.492	0.510	11.247	0.000	0.354
3	H2b	SCRM	OF	0.433	157.260	0.497	12.540	0.000	0.465

The research results suggest the fitness of the SEM model with SRMR = 0.093,  $d_{ULS} = 3.485$ ,  $d_G = 1.259$ , NFI = 0.578. All the relationships were also suggested to be significant with reported zero p – value is zero for each relation. For H1 (SCRM  $\square$  Organizational Performance) the p – value is zero with path coefficient equal to 0.303, which means that the relation is significant. It shows that H1 is accepted. The (SCRM  $\square$  Operational Efficiency) relationship is also proven to be significant with path coefficient of 0.354 with significance level of 0.00. It shows that the relation is significant. Moreover, H2b (SCRM  $\square$  Operational Flexibility) has p – value equal to zero with path coefficient 0.465, which indicates that a significant relationship. Similarly, the t – value for each of the variable is also greater than threshold value i.e. 1.96 which also recommends its reliability.

Model 4 of Process by Hayes (Preacher & Hayes, 2008) was utilized for testing the H3a and H3b where the mediating roles of operational efficiency (H3a) and operational flexibility (H3b) in SCRM  $\square$  Organizational Performance relationship were tested. As shown in Table 7, it is clear that all the values are significant with  $p < .001$ , and t – values greater than 2 except the p – value for the mediating relationship of operational flexibility between SCRM and OP is .7905 and its t – value also validates an insignificant relationship hence the H3b is not accepted. Therefore, where our hypothesis H3a is supported, the hypothesis H3b is not supported by the data collected from national defense-related manufacturing organizations in Pakistan.



Table 7  
*Mediation analysis of supply chain integration (SCI)*

Effect	IV	M	DV	Coeff (b)	F	t value	p	R <sup>2</sup>
X → Y path c	SCRM		OP	.4808	56.12	7.49	.0000	0.21
X → M path a	SCRM		OE	.5095	126.49	11.25	.0000	0.38
	SCRM		OF	.4969	157.26	12.54	.0000	0.43
X → M → Y path c'	SCRM	OE	OP	.3650	25.07	3.57	.0005	0.27
	SCRM	OF	OP	.0311	25.07	0.27	.7905	0.27

Moreover, in order to validate the mediation, the indirect effect was checked by calculating the difference between total effect and the direct effect, which was 0.2014 between the confidence intervals of 0.0833 and 0.3202. As per the Null hypothesis, 0 value is not included in between lower and upper-level confidence intervals, thus suggests significance of the data is in favor of our hypotheses H3a and H3b. Similarly, for testing the indirect effect of SCRM → Organizational Performance with operational efficiency and flexibility as a mediator and SCI as a moderator, bootstrap analysis was conducted by using SPSS Process v 3.2 extension by Andrew (Preacher & Hayes, 2008). For this purpose, model 7 is used. The results are presented in Table 8 and Table 9. Where, Table 8 shows the direct effect (does X predict Y) is significant as p – value is 0.0018. Moreover, t – value (3.1616) which validates that the data is significant. The path b (does M predict Y) is also shown in Table 7. The path b (does OE predict OP) is significant whereas operational flexibility is not significant as p = 0.79 and t – value also verifies operational flexibility and performance relationship.

As shown in table that for the mediation of operational efficiency, zero doesn't lie the lower-level confidence interval and the upper-level confidence interval. So, the interaction of SCI and SCRM on operational efficiency is significant, whereas for operational flexibility the results show that the relation is not significant. So, we can say that SCI positively moderates SCRM relationships with both OE. Hence, H4a is confirmed. However, H4b is not significant.

Table 8  
*Bootstrap test results (direct and indirect effect)*

No	Effect	IV	DV	Effect	T	P
1	X → Y path c	SCRM	OP	.2793	3.1616	.0018
2	M → Y path b	OE	OP	.3650	3.5664	.0005
3		OF	OP	.0311	0.2661	.7905

### 4.3 Additional Analysis

Table 9 shows the results related to conditional indirect effect (how W moderates in connection with M the relation between X and Y). For testing the moderation effect of SCI, three values of SCI (low, average and high) are taken into consideration. For OE as a mediating variable, the results show that as the value of SCI decreases, the effect value also decreases. Moreover, the zero does not lie between the lower-level and upper-level confidence intervals. This supports hypothesis H4a. Moreover, the interaction coefficient also supports the hypothesis as shown in Table 9.

Table 9

*Conditional indirect effect test results (source: Authors, 2020)*

No	Effect	IV	M	DV	SCI	Effect	LLCI	ULCI
1	X $\square$ W*M	SCRM	OE	OP	-1.1432	.1402	.0607	.2297
2	$\square$ Y	SCRM	OE	OP	0.3013	.0823	.0312	.1436
3		SCRM	OE	OP	0.8568	.0600	.0102	.1222
4		SCRM	OF	OP	-1.1432	.0146	-.1097	.1279
5		SCRM	OF	OP	0.3013	.0079	-.0606	.0701
6		SCRM	OF	OP	0.8568	.0053	-.0443	.0513

## 5. Discussion

This study focuses on exploring the relation between SCRM practices, operational flexibility and efficiency, supply chain integration and organizational performance utilizing the IPT. Although some early research work has already been performed in manufacturing firms, a study in national defense-related institutions was still missing from the literature. In this study, we collected the data from defense-related national institutions in Pakistan. 207 participants were selected for the study of the proposed hypotheses. The collected data was processed through SPSS and SmartPLS 3.0 software to get the results.

The Information Processing theory was utilized in this study to assess the influence of supply chain risk management on organizational performance, with operational efficiency and operational flexibility acting as mediators and supply chain integration acting as a moderator. The goal of this study was to answer certain unaddressed questions that needed more investigation to fill a gap in the literature and to give concrete results to practitioners so that they might benefit from them. By using data from defense-related national institutions in Pakistan from a sample of 207 participants, we found that the influence of supply chain risk management on organizational performance was found significant ( $\beta = 0.481$ ,  $t = 6.913$ ,  $p = 0.00$ ), supported H1. Furthermore, we discovered a strong positive association between supply chain risk management and operational efficiency ( $\beta = 0.510$ ,  $t = 11.247$ ,  $p = 0.00$ ) and supply chain risk management and operational flexibility ( $\beta = 0.497$ ,  $t = 12.540$ ,  $p = 0.00$ ), thus

H2a and H2b were accepted. According to the findings of this study, operational efficiency and operational flexibility have a mediating function between SCRM and OP. Operational efficiency, according to H3a ( $\beta = 0.3650, t = 3.57, p = 0.0005$ ), can have a significant mediating impact on supply chain risk management and organizational performance.

As a result, it has the potential to ease the OP of Pakistan’s defense-related national institutions. However, according to H3b of the research, operational flexibility plays an insignificant mediating function between SCRM and OP ( $\beta = 0.0311, t = 0.27, p = 0.7905$ ). Furthermore, the H4a of the study was found to be significant ( $\beta = 0.3650, t = 3.566, p = 0.0005$ ), indicating that the existence of supply chain integration as a moderator increases the connection between SCRM and operational efficiency in national defense-related institutions. However, the study’s rejected H4b ( $\beta = 0.0311, t = 0.2661, p = 0.7905$ ) indicated that the connection between SCRM and operational flexibility in national defense-related institutions is decreased when supply chain integration is present as a moderator.

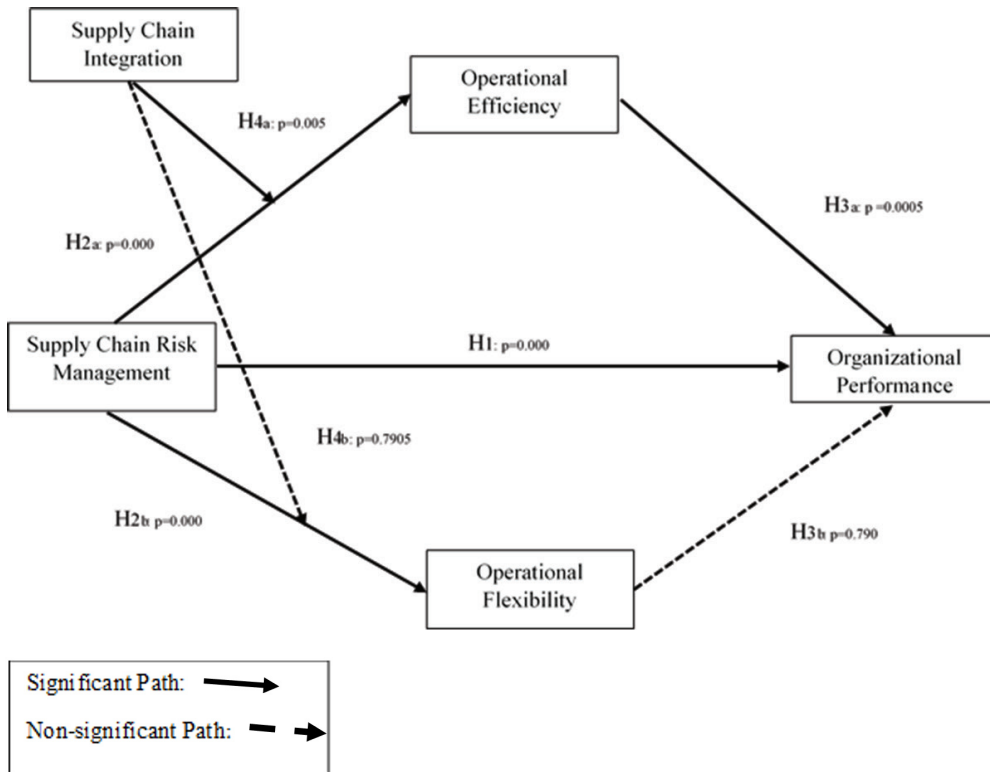


Figure 3: The model results

Our results are in line with previous research by Thun & Hoenig (2011) who found a positive impact of supply chain risk management practices and firm performance. Similarly, Shou et al. (2018) also found evidence of the mediating role of operational performance in the SCRM- performance link. Furthermore, we extend the literature by providing evidence of a holistic construct of supply chain integration instead of supplier integration only. Thus, where previous researchers found the moderating role of external supply chain integration in market responsiveness, we also found evidence of the moderation of supply chain integration on operational efficiency. However, despite our proposed hypothesis, we could not find evidence of the moderating role of SCI on the link between SCI and operational flexibility. One of the reasons of this insignificant relationship might be that the data is collected from national defense-related manufacturing organizations that have less flexibility in their operations. Mostly, defense-related national institutions have a low level of flexibility in their operations as compared to manufacturing organizations. Most of the operations are as per standard operating procedures which do not require any flexibility in their procedures. To test the moderating effect, the bootstrap analysis and conditional indirect effect is measured.

### ***5.1 Theoretical and Managerial Implications***

This study extends the previous literature on validating the linkages between supply chain risk management practices and the organizational performance outcomes by proposing and testing a model on the national defense-related institutions (Kauppi et al., 2016; Fan et al., 2017; Shou et al., 2018). This paper elaborates the SCRM's impact on organizational performance with the mediating role of operational performance. By utilizing the theoretical lens of information processing theory, our research explores the link of SCRM with operational flexibility and efficiency. The previous studies suggest that sometimes it is hard to explain both variables simultaneously (Kortmann et al., 2014). Few studies have shown the relationship of SCRM with an operational performance by considering both dimensions (Shou et al., 2018). This research also contributes to the previous work to develop the relationship of SCRM with both of these variables simultaneously. As per IPT, SCRM tactics like referable procedures, contingency planning and buffering strategies are applied to prepare a reliable environment. Such an environment decreases the requirement of information processing for others. Moreover, it also increases the capability of processing of information through the sharing of information.

This study also suggests that managers should implement SCRM practices in their organizations. The managers having less knowledge about SCRM and about the increasing rate of risks and uncertainties which SCM is facing on a daily basis may not take this as a serious matter. Due to their unawareness, they may consider the initial costs of SCRM practices higher than the possible future uncertainties and risks. Therefore, they do not invest in it. But in case of any mishap, they face a huge loss, and at that time they may have to bear more cost in the form of losses and recovering assets than the actual investment in SCRM practices. The

supply chain of BMW is a good example of the implementation of SCRM. If they had had multiple suppliers for that product or had information in advance, they may not have faced such a loss. This study also highlights the importance of Operational performance (operational efficiency and operational flexibility) in relation to SCRM. The organizations enjoying the organizational performance with the help of the SCRM practices may also implement it to improve operational performance.

## 6. Conclusions and limitations

Using the theoretical lens of IPT, our research is an addition to the existing body of knowledge relevant to the risk management practices in the domain of supply chain management. Our findings confirm the existence of a positive relation between SCRM practices and the organization's performance. Our findings also confirm an indirect relation between SCRM practices and organizational performance through operational efficiency. Furthermore, our research sheds light on the impact of SCI towards the implementation of Supply chain risk management practices. Our research stresses the importance of risk management capabilities in national defense-related manufacturing organizations, and supply chain managers must strive to create and exploit such capabilities in order to improve the operational as well as the overall performance of their firms.

Our study is also limited due to a number of factors and future researchers can utilize these areas for their benefit. First, we have taken an integrated construct of supply chain integration. Researchers can investigate the individual dimensions of the construct and explore their individual impact. Second, national defense-related manufacturing organizations in Pakistan have been taken as a sampling frame for our research. In future, other types of public sector organizations and other types of organizations, like non-profit organizations should also be considered to test our model and generalize our findings across a number of sectors. Finally, we must admit there are other ways to look at the different relationships in our model; e.g. flexibility can be taken as an antecedent to SCRM and efficiency, or the construct of integration can also be tested as an antecedent to efficiency.

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# The Nexus Between Employability Skills and Economic Well-being in the Context of China-Pakistan Economic Corridor

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## Abstract

*This research aims to assess the relevance and association of employability skills of university graduates and its impact on economic well-being in the context of China Pakistan Economic Corridor. This study analyzed students' employability skills and governments' and universities' policy initiatives for skill development. The mixed methods approach used, conducted key informant interviews(n=7) from different stakeholders and a structured survey (n=241) from seven public sector universities students. This research also did an archrivals analysis of the available policy documents, annual reports, prospectus, and other relevant information. The findings of this research are valuable in terms of understanding the current government policies, higher institutions' role in the development of skilled human resources and implementation of the standards. In addition, the study also found that the China-Pakistan Economic Corridor has huge potential to enhance the economic growth of Pakistan given that the development of skilled human resources is treated as a priority. In particular, this paper assessed and analyzed the supply and demand side of employability skills and its impact on economic well-being in the framework of China Pakistan Economic Corridor.*

**Keywords:** Employability skills; economic well-being and CPEC; economic growth; economic corridor.

**JEL Classification:** J24

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## 1. Introduction

In today's global knowledge-based economy higher education institutions are pressed to produce competitive and skilled human resources. The world reputed international forums and organizations; for instance; United Nations, International Labor Organization (ILO), World Bank, World Economic Forum and the others have demonstrated strong commitments and a great emphasis on higher education institutions to prepare the graduates' employability skills for the world of work. It is in United Nations Sustainable Development Goals to impart quality education that inculcates valuable skills that would lead them to prosperity and economic uplift of nations. ILO (2021) reports that global economy requires employability skills that are instrumental to strong economy and organizations require key employability skills into university graduates for their particular jobs. Furthermore, UNESCO (2020) emphasized that, with growing population of global youths, countries would face significant challenges as the result of growing gap of skilled graduates' requirement by employer. Further, it will ultimately result into persistent unemployment in the countries, underemployment and longer school to work transitions. In fact, proper skill-development in the youth of countries would be instrumental in the eradication of poverty, increase employability, enhance countries' productivity, and raise the standards of living (World Bank, 2021).

Although this is a worldwide phenomenon, Pakistan is not an exception. The highest proportion of youth population faces significant developmental challenges. Pakistan possesses nearly 4 million youth reaching working age each year, and it has the world's ninth largest labor force. Pakistan's youth unemployment rate is higher than in several other South Asian countries (Ministry of Planning, Development & Special Initiatives, Report, 2020). According to World Bank (2020), every year millions of young people in Pakistan are failing to join the labor force due to a lack of job skills. Furthermore, according to the 2019 World Economic Forum Global Competitiveness Report, Pakistan has among of the lowest levels of human capital capabilities, placing it as 125th out of 141 nations (Schwab, 2019). According to ILO country representative, youth in Pakistan lack possibilities for skill development are more vulnerable to social stigmatization. (Dawn 2019). Based on the available data and an evaluation of the current situation, Pakistan needs to introduce aggressive policy changes to address the employability of young people in general and university graduates in particular.

In times of economic progress, higher education institutions play a more crucial and demanding role as actual change agents for the nation's economic growth. A recent study showed that due to the lack of skilled workers from the local population, most jobs created through projects go to migrants rather than indigenous people, and particularly to skilled university graduates (Mccartney, 2022). The China Pakistan Economic Corridor (CPEC) has increased need for skilled labor in the context of economic development. Undoubtedly, the CPEC's massive economic activity represents Pakistan and especially Balochistan's best chance to break the cycle of low growth, unemployment, and poverty and better the lives of

its people in general. Pakistan should therefore concentrate on improving the pool of professionals, managers, executives, and technical workers rather than unskilled labor force in order to gain the most advantage (Wolf, 2020; Nizamudin et al., 2019, Ahmed et al., 2017).

Balochistan is the most under privileged and under developed province of the country. For many years the province had faced the natural disasters, menace of terrorism, ethnic and sectarian conflicts in the province which led the region among the poorest areas that is highest on poverty and lowest on human development index (e.g., in 2018 HDI of Balochistan was 04.77 that was lowest as compared to other provinces at 0.529, 0533, and 0.0567: KPK, Sindh and Punjab respectively).

Therefore; in promoting the employability skills, the universities have to play a vital role in the economic development of the country and these institutes should be considered as catalyst for bringing change as whole (Suleman, 2018). Attracting skilled human resources, well-educated people, knowledge transfer, and contributing to the creation of new ideas is essential to maintaining the sustainable competitive advantages of established organizations (Klofsten et al., 2019). Further, it is argued that universities should produce relevant and practical skills which must fit employers' demands (Mason et al., 2009).

The strategies and policies used in benchmarks universities for the development of employability skills are consultancy projects, short and extended work placements, live client briefs, enterprise weekends, guest speaker programs, simulations, games, group work presentations, debates, mock interviews and case studies (Andrew & Russell, 2012). Some skills development is needed outside of the curriculum activities i.e. extra-curricular activities.. Meanwhile it was revealed in the study that full-fledged employability skills needed stem from more out of the curriculum activities than the core curriculum. Further, the study suggested that consistent validity and academic review is needed for the development of effective employability skills. Similarly, the students' awareness of employability skills needed for their professional growth are also required (Andrews & Russell, 2012).

However, CPEC has lit up a hope for the masses of Balochistan by initiating a huge investment in the region. Number of projects have been designed for Balochistan and more specifically for Gwadar city. The CEPC projects in Balochistan comprise free economic zones, infrastructure development, Gwadar port master plan, energy projects, power plant, Gwadar international airport, schools and expressways, and technical and vocational institute etc. Considering unemployment situation and lack of skilled human resource in the province, the people of Balochistan are in dire need of educational Institutions. For example, higher education institutes, vocational and technical training centers that inculcate basic required skills in the youth of province. An efficient federal as well provincial government policy is also required that would support and implement the skilled human capital policy in the region specifically with reference to CPEC. The government has to elevate the human capabilities of

the region so that they put their true effort to make economic gains for the country. Otherwise, these developments have no meaning for the people until they get benefits (i.e.; improved HDI) from the CPEC.

## 2. Understanding the Context

Developing nations have been attempting to make significant progress toward achieving the Sustainable Development Targets, while success varies greatly between proposed goals, countries, and regions. The focus of the rising economies is mostly on human capital development. Countries are preparing their workforces with the needs and employment requirements of today world in order to fulfill the prospective demands of a competitive environment. In the context of Pakistan, the employability skills gap has widened which is due to lack of collaboration among employers, graduates and educationist (Abbasi et al., 2018). Pakistan has a well-established higher education system that includes both private and public institutions. However, the system of these institutes and their offered programs' relevance to the labor market have been heavily criticized. On this, the researchers argued that foreign talent is being introduced due to a shortage of local expertise, which is a serious danger to domestic graduates (Wolf, 2020; Green 2019; Aring, 2012). Undoubtedly, the development of graduates' soft and hard skills, such as communication, problem-solving, critical thinking, technical, digital, emotional intelligence, and entrepreneurial abilities, is a responsibility of educational institutions (World Bank, 2019; Collet et al., 2015).

The difficulties in finding employment for graduates outweigh the valuable and necessary talents that universities provide, which provides them a pool of marketable abilities and increased productivity. In light of CPEC, Balochistan has neglected the development of competent people resources (Kanwal, 2020; Ahmed et al., 2017). This is regarded as a significant gap between Balochistan's universities' skill supply and the anticipated capabilities needed in the country's prospective CPEC-related sectors (BTEVTA Report, 2016). According to a Chinese official, high-quality skills are lacking (Rathore et al., 2020, Wolf, 2020). Therefore, improving graduates' skills for their future employment in a variety of businesses should be one of the key goals of Balochistan institutions. However, having a university degree is not enough; it must also contribute to economic progress. This poses a serious threat to graduates in the area (Wolf, 2020; Green 2019; Aring, 2012).

In fact, universities' failure to provide students with relevant and complementary talents that give people a store of marketable skills will increase the problems with graduates' employability. A comprehensive skills assessment and mapping is extremely required to find out current needed skills, employment opportunities and futuristic skills sets. Universities shall device a mechanism that what skills are demanded for CPEC project and how educational institutions would be able to supply the needed human resources (Khan & Ahmed, 2018). The main objectives of study are the analysis of archrivals/documents/strategic plans



of universities for assessment of skill-oriented programs and their relevance to CPEC in Balochistan. Further, to analyze the relevant employability skills (supply side) in the passing out graduates, to identify demand side relevant skills in the industries and to match the skills on both sides. Finally, to recommend the shortcomings of the skills to the relevant policy makers. Hence, it is need of the hour for the government, universities and other stake holders to take corrective steps to develop skilled human resources for CPEC projects and assess their current availability in Balochistan.

### **3. China Pakistan Economic Corridor**

Economic corridors are considered as blueprints for economic growth and development. The 62-billion-dollar mega project of CPEC opens new avenues of economic growth in the region. With the completion of CPEC it is estimated that the regional economies will grow up to \$2.5 trillion and over millions of people will be benefited from giant project (Rathore et al., 2020; Hussain 2019; Ahmed et al., 2017). CPEC flagship project key areas include construction of an integrated transport system, information network infrastructure; Energy-related field projects, construction of economic zones and Gwadar city developments projects (Wolf, 2020). CPEC would create opportunities for the local community of employment and improve their living standards. To capitalize maximum benefits from the CPEC project, the local workforce is needed to be trained, specially the skilled labor force from Balochistan, where the baseline of project begins.

The analysts argued that CPEC is a game changer for the economic development of the region, and it would be a major platform for both bilateral and multilateral cooperation. It is a gateway which connects old Silk Road economic belt in north with the current millennium new maritime silk road in south (Javed & Ismail, 2021). It specifically ensures the growth of trade and economic activities within states in the region (Javed & Ismail, 2021). This corridor is a gateway between China and Middle East as well as Africa (Javed & Ismail, 2021). It is further argued that the project has the potentials of economic and industrial miracles same like the economic progress of Japan, South Korea, and ASEAN countries of 1980s (Malik,2018).

CPEC would be instrumental in the economic upbringing, social well-being, and geo-politic importance of the region (Makhdoom et al., 2018). It would be helpful in generating several entrepreneurial opportunities for local communities of Pakistan. Particularly, accessibility of cities as well as local transports has a significant impact on positive attitude towards entrepreneurial activities, and in turn attitude towards entrepreneurial activities and latter had a positive relationship with intention towards CPEC project growth (Kanwal et al., 2019). It is not only strengthening global business opportunities and gateway for foreign firms but it is also helping in promoting business opportunities and economic growth within provinces of Pakistan (Javed & Ismail, 2021). The study also revealed that the project

strengthens the economy and business activities more than energy and another sector (Javed & Ismail, 2021).

China's Consul General in Karachi Li Bijian in February 2020 interacted with Dawn news and elaborated that the lack of skilled workers in Pakistan is one of the biggest challenges for Chinese companies to invest in Pakistan. He further stated that they are also planning to start skill enhancing program for the local labor market in order to create employment opportunities for local youths. The indigenous firms are badly hit due to insufficient skilled labor, as a result, Chinese firms are more obvious to capture the market and it was also evident during the first phase of CPEC in –Gwadar that out of 600 workers, China only hired 100 locals (Ul Hassan, 2020). In the light of above discussion, this research addressed to find out the answers of numerous research questions, such as (a) Does the government have any national policy for developing skilled human resources? (b) Do universities, technical and vocational institutes have any role in the development of competitive and skilled human resources? (c) Do programs curriculum/course contents fulfill the requirement of skills needed in CPEC 's project (d) Is there any mismatch between demand and supply of required skills? (e) Is there any collaboration between industry and academia regarding skilled human resources? (Ahmed et al., 2017)

### 3.1 *Projects of CPEC in Balochistan*

Under CPEC, the projects were initiated based on 1+4 model which includes CPEC plus infrastructural development, industrial development, energy projects, Gwadar international airport as well as the operationalization of Gwadar port. These projects will be executed in three terms: short-term, medium-term, and long-term and the tentative completion year is 2030. The following Table-1 exhibit the projects and the employment generation capacity of the mentioned project under China Pakistan Economic Corridor.

Table 1  
*CPEC Projects Balochistan*

<b>Projects and Locations</b>	<b>Estimated Cost (US \$ Million)</b>	<b>Total jobs created</b>	<b>Total local jobs created</b>	<b>Total jobs created during the construction phase</b>
1320MW China Hub Coal Power Project, Hub Balochistan	1912.2	1720	749	4200
Development of Port and Free Zone, Gwadar	300	120	240	
Gwadar Smart Port City Master Plan	4	90	73	
Pak-China Technical and Vocational Institute at Gwadar	10	249	135	
Gwadar Eastbay Expressway	179	2000	1700	

Source: Cpec.gov.pk

### 3.2 *Employability Skills and higher education institutions*

The researchers emphasize that employability is a complex notion and distinguishes between elements that are significant for job access and those that prepare the graduates for employment. McQuaid and Lindsay (2005) provide a holistic approach to understanding employability and the interaction of individual and contextual factors. The extant of literature demonstrates a great emphasis on higher education institutions to prepare the graduates' employability skills for the world of work. In promoting the employability skills, the universities have played a vital role in the economic development of the country and these institutes are considered as catalysts for bringing change as a whole (Suleman, 2018). They are carrying out their role as catalyst for development through attracting skilled human resource, well-educated people, facilitating knowledge transfer, and contributing to the creation of new ventures, as well as to maintaining the competitiveness of established organizations (Klofsten, 2019). Furthermore, it is argued that universities should produce relevant and practical skills which must fit employers' demands (Mason et al., 2009).

Researchers, Olivier et al. (2014) identified employers' perspective of skills; for instance, foundation skills, adaptive capacity, learn autonomously, develop new ideas, and innovate; team working and interpersonal skills. Suleman (2018) highlighted the need of generic skills in the context of university curricula. More recently Klofsten (2019) stressed integrating entrepreneurial skills in the university curriculum and such universities are now seeking ways to interact with public and private sector partners and communities to contribute and to make a societal impact (Wakkee et al., 2019). The university can contribute to sustainable development by empowering entrepreneurial scholars as agents of change.

Latest research conducted in this field has focused on changes in the university paradigm as such, on the commercialization of knowledge or on the creation of spin-offs (Mascarenhas et al., 2017) while often linking this to the regional economic development (Bramwell & Wolfe, 2008; Galvão et al., 2018; Trequattrini et al., 2018; Trippel et al., 2015).

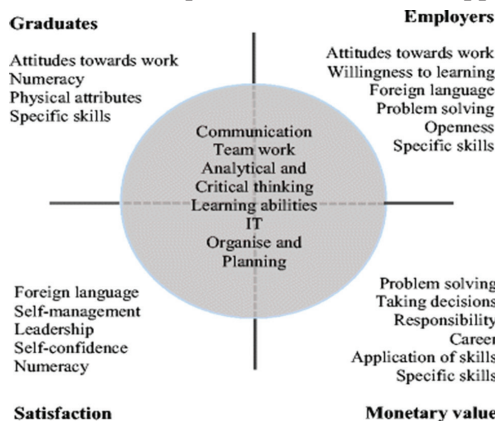


Figure 1: Employability Skills Framework Suleman (2017)

Similarly, a number of studies investigated employer perception or satisfaction with graduate skills and found different results. For instance; Cheong et al. (2016) identified values and personality, willing to learn, openness, analytical and critical thinking are the key expectations of employers. In other study, Teijerriio et al. (2013) found that graduates' ability to learn, motivation to work and problem-solving skills are prioritized by employers. Moore and Morton (2017) who interviewed twenty supervisors of fresh hired graduates found that communication and writing skills were the focus of employers.

This study discovered the abilities that are predicted to boost graduates' employability in Balochistan. . Empirical studies typically focus on either broad or narrow disciplines within higher education, as well as a few specific professions or industries.

There are several qualitative and quantitative studies that may be used with little or big samples. In short, some talents are present in practically all subjects. This is especially true for communication skills, technical skills, collaboration, and cognitive talents such as learning capacity and analytical thinking. Teijeiro et al. (2013) and Velasco (2012) argued that employers emphasize on human characteristics such as work motivation or hard labor, excitement, devotion, and ethical awareness. However, in certain cases, we discover a difficult conundrum incorporating broader social and economic inequities that influence equal possibilities to acquire work or receive a matching position for certain graduating students.

Furthermore, it is evident that developing countries need to adopt the World Bank basic conceptual framework known as Skills Toward Employment and Productivity (STEP) that can assist policymakers, analysts, and researchers in thinking through the creation of systems that transmit skills eventually boosting productivity and growth. The figure-1 depicts that initiatives may drive the preparation of diagnostic work on skills, and then the formulation of policies across sectors to create productive employment and support economic growth by bringing together what is known about the aspects of a successful skills development plan. The structure is organized around five interconnected stages.

There is increasing demand of development of employability skills in higher education institutions and this is emergent field of research now a days (Asonitou,2014). However, Educators as well as policy makers both favor the need of high skilled education system for the better employability of graduates and prosperous economy but still there are hurdles in the proper implementations of this program, and the reasons for this are still to be explored. Similarly, there is high role of government in implementing skilled-based curriculum in the state (Asonitou, 2014).

### 3.3 *Theoretical Foundation*

Theoretically, study objectives are supported by the human capital theory. The theory posits that investing in human resources in terms of education, skills and training can lead to increased economic growth, productivity, higher wages and greater job opportunities (Becker, 1993). It also implies that the mismatch between the skills required for the jobs available in the economy can be addressed by investing in the human capital of individuals.

Such investment has a direct and indirect impact on all stake holders at large (i.e. organizations, communities, and societies; (Nafukho et al., 2004; Swanson & Holton, 2001). According to Drucker (1999) and Porter (1998), human capital not only influences the economic growth, but also increases national competitiveness. Moreover, human capital is considered the single most strategic component of development, and several economies in the world have identified that development comes through the development of people (Ahmed et al., 2017). In summary, the theory argues that individuals who invest in their own human capital, such as through education and training, will see a return on that investment in the form of higher wages and greater job.

### 3.4 *Research Design*

For accomplishing the research objectives, we collected both qualitative and quantitative data. This research used a mixed method of embedded design. Because current research needed preliminary explorations whereby researchers did not have adequate resources to place equal priority on both types of data so the researchers combined the collection and analysis of both quantitative and qualitative data within a traditional quantitative research design or qualitative research design (Creswell, 2014). A structured survey from seven public sector universities students i.e. University of Balochistan (UOB), University of Turbat (UOT), University of Makran (UOM), Balochistan University of Information Technology, Engineering and Management Sciences (BUIITEMS), Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS), University of Loralai (UOL), and University of Gwadar (UOG) was conducted. These public sector universities would be true representative of the population as there are only nine public sector universities in the province. The survey was conducted by using simple skill assessment framework. For example, questions related to their skills were asked; "I have good oral communication skills and I am good at solving problems". Furthermore, the five-point Likert response scale was employed in this study that is 1: strongly disagree to 5: strongly agree.

A Convenient sampling was employed; a total of 241 responses were used for data analysis. As this technique is likely to be effective in addressing simple and basic research questions and hypotheses in the early stages of study development or in preliminary studies, hence, with limitations the convenience samples are not generalizable and do not apply to the

broader areas of research where scientific patterns are desired when generalizable results are not necessarily would apply to the larger population. (Saunders et al., 2007). Furthermore, we have conducted Key Informant Interviews (KIIs) from different stakeholders. The key informants are selected based on their positions with at least 10 years of experience at policy level i.e.; (For academic institutions Deans/HoDs/Registrars and Governmental organizations/authorities; Directors/Deputy Directors/Managers/Dy. Managers). Seven keys informants' interviews were conducted that included representatives from, Department of Industry Government of Balochistan, National Vocational and Technical Education Commission, Universities, Gwadar development Authority, Small and Medium Enterprise Development Authority, Industrial Development Authority and Export Processing Zone Authority. The interview protocol was consisted of different questions such as, do graduates possess the competency and or ability to contribute in Balochistan and CPEC? Are the policies in place for developing skilled human resources? Moreover, the NVIVO software was used for qualitative analysis. For quantitative part SPSS was employed for simple descriptive statistics analysis of population characteristics.

### **3.5 *Analysis of Qualitative Data***

For this preliminary study, we conducted semi-structured interviews, and thematic analysis interviews of academicians, policy makers and executive's responses were conducted. Each interview's recordings were listened carefully, transcripts were initially read several times and notes were written (Miles et al., 2014). The data was organized and managed using NVIVO under the themes identified and codes were assigned to each of the descriptions under five broad themes that align with the study research questions. For instance; themes are: 1) discussing their definition of employability skills 2) Balochistan and CPEC needs 3) Universities' focus 4) industry demands 5) curricula and education. Furthermore, the whole interviews were broken into codes and categories for detailed understanding. The codes were reviewed and re-reviewed in the NVIVO database and were reduced and combined to narrow the number of codes. The refinement process allowed for the development of codes that best described the academics, executives, and policy makers' understanding of created themes:

### **3.6 *Employability skills***

To prepare future graduates for work readiness, the academicians state that they want to give students the opportunity to enhance their work readiness, through the practice and demonstration of employability skills. Nevertheless, they also expressed that it is not feasible to assess how well the academic role contributes to the acquisition of some employability skills, such as presentation and collaboration skills. On other hand executive and policy makers also stressed the need of skills in the graduates which are essential for the market. For the purpose of analysis and interpretations, the code and themes of 'employability skills' were inferred and assigned to the following quote;

*My understanding of employability skills is that a graduate whenever graduates from the university he or she should be ready to take the lead as well as shall be capable of understanding at least the primary requirements of any job.*

*Working with industries and having vast experience of industrial linkages, in my humble opinion, employability skills mean that a student whenever graduates from the university must understand the basics of their subject and what sort of things do organizations demand. Students must polish their skills to fit and survive in that particular industry.*

Furthermore, the respondents have given their valuable thoughts on all created themes. That are to great extend reflective of the practical or real issues on the subject area which they have critically analyzed and evaluated: the prevailing situation of the graduate skills, industry demands, and the role of universities for bridging that gap in future.

*Workforce in Balochistan defiantly lack skills. Because there is gap between industry and academia. In context to CPEC they need high technical workforce but our employees' skills are limited and very conventional which do not fulfil their requirements. For example, they need employees for cargo, logistic management, hotel management, cold storage management etc.*

*I feel that inconsistent policies and industry-based curriculum is missing from the universities for developing skilled workers*

*Being an academican, no doubt our role is very critical for developing the future minds of the country. We are putting our efforts at large to have better graduates with skills, however couldn't create that impact which is needed. That is not because of an individual 's responsibility but it is dependent on a bunch of factors.*

*I think we should focus on artificial intelligence, robotics and various engineering sectors. Medical sciences should also be in our priorities.*

*On the other hand, there is better job opportunity for conventional jobs. But, we have to focus on high-tech because it's the need of time, that's why it will be our main focus in days ahead.*

Similarly, the analysis of the themes and quotes of the experts from academia, government and industry on 'Balochistan and CPEC' shows that:

*Compared with other provinces, Balochistan has lower employability ratio and the reason may be the lack of industries. Instead of conventional training such as beautician, press making, we are more focused on High-tech training, such as cyber security. Currently, 1600 people are being trained for conventional skills and 3000 for high-tech. we offer more*

*than three hundred high-tech courses. As a matter of fact, there are lack of opportunities for high-tech jobs and the once we trained people for high-tech, they could only start freelancing.*

*Workforce in Balochistan defiantly lack skills. Because there is gap between industry and academia. In context to CPEC they need high technical workforce but our employees' skills are limited and very conventional which do not fulfil their requirements. For example, they need employees for cargo, logistic management, hotel management, cold storage management etc.*

Although universities are producing relevant graduates but still in the context of CPEC we lack skilled or qualified human resources. Even if several policies at the government level have been implemented, there has been no major change thus far. In the case of CPEC, a lot of projects in various industries have been initiated, plainly requiring specialized or skilled labor. We cannot yet say that Balochistan has an adequate pool of competent workers. There are numerous approaches to bridge these gaps, but correct policy and implementation are required in order to produce qualified graduates. From the analysis it is clear that from the point of view of the respondents, on one side, universities aim to give skill to their pupils but lack those programs which are more demanding in time of CPEC. One of the respondents emphasized the promotion of skills that are helpful for the graduates' employability. Moreover, they have highlighted that;

*The province of Balochistan has been neglected for developing human resources. Today the province has only ten universities that are fulfilling the demand of the industry in particular in CPEC. On the one hand we may notice that there is a skills deficit in our province and that the gap has been extremely big for a long time.*

*New economic zones are being established and I am also responsible for correspondence and coordination with various authorities for the said zones. Currently two economic zones are approved. One of them is Hub special economic zones which consist of 406 acres and the other one is Bostan special economic zone in Pishin district. In total four economic zones in Pakistan are being run under the umbrella of CPEC and Bostan special economic zone is one of them.*

*In the case CPEC, the province needs skilled graduates as number of CPEC projects are initiated in Balochistan. So on the emergency basis the government and the universities need to develop such policies that strengthen the employability skills of the people of Balochistan.*

*Graduated students' skills are very conventional which do not fulfill our requirements. Because the universities are still focusing on old curricula that's why companies have to bear extra cost for capacity building. They were asked to revise the curricula which should fulfil today's business demands.*



#### **4. Industry and Universities**

*The universities may conduct survey in special economic zones and should check which skilled are required and based on their survey they should train the skilled labors. The industrial department is also providing training such as carpet waving, tailoring, handicraft, but these are household and outdated skills which do not fulfill industrial requirements. I will quote one example; all industries use boiler in Balochistan but we have a minute number of boiler engineers in Balochistan. Finally, I believe that for industrial and academia linkages there should be a special task force or steering committee to seriously look after this matter.*

*Universities must assess and revamp present learning frameworks so that we can have a sufficient number of skilled graduates for CPEC who would have an influence on the general growth of the country.*

*As I mentioned that there is a tough environment in which the fittest will survive, no doubt universities are trying their best to produce quality graduates but still number of things are missing. One thing I have observed when universities design their program that are not that much effective from which students can easily get jobs, for instance, 6 or 8 weeks of internships are important but I have observed that neither the universities take it seriously nor the students. That's why they lack practical experiences.*

In a nut shell, the analysis of the data reveals that till to date the supply side of skills in Balochistan lacks in quality as well as quantity which requires some major education policy reforms in shape of new programs, curricula, and practical exposures which would be the demand of the industry for skilled human resources aimed to the execution of the projects under CPEC. Furthermore, the findings of this study show that universities shall provide an environment of learning in which the students learn not only academic course contents but also skills relevant to theoretical application that can eventually reflect in their practical life. However, there are a number of challenges in our educational system that necessitate some significant reforms for creating skilled graduates that further contribute in the development of the country in general and province of Balochistan in particular.

##### **4.1 Descriptive Findings**

Based on the study scope and objectives, in the third phase of data analysis; we have analyzed quantitative data on skills assessment of enrolled final year students in different public sector universities of Balochistan. The respondents were asked questions based on simple skill assessment framework. The questions related to general employment skills were that to what extent they feel confident that they have possessed the skills which are needed for performing job in their respective fields, etc. From the descriptive analysis it was found that employability skills are critical component for universities graduates' readiness, and inferred

that how these skills could be embedded into instructional practices. For instance, Table-5 depicts that the students' responses of questions 6, 12, and 13 show highest mean values 4.50, 4.37 and 4.37 respectively. It shows that students are confident and good at solving problems, are confident to use information and communications technology, and they are satisfied with their quantitative abilities. On other hand, the lowest mean was reported 3.48, although the value is low but above the mid-point. For example, relatively it depicts that lesser students work well independently. Furthermore, the demographic information and universities distributions are depicted in Table 2, 3 and 4.

Table 2  
*Gender*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	194	80.5	80.5	80.5
	Female	47	19.5	19.5	100.0
	Total	241	100.0	100.0	

Table 3  
*Gender wise Distribution*

Gender	Universities							Total
	UOB	BUI TE MS	LWAU MS	UOL	UOG	UOT	UOM	
Male	28	25	35	20	21	43	22	194
Female	9	4	8	2	4	17	3	47
Total	37	29	43	22	25	60	25	241

Table 4  
*Public Universities*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UOB	37	15.4	15.4	15.4
	BUI TEM S	29	12.0	12.0	27.4
	LWAUM S	43	17.8	17.8	45.2
	UOL	22	9.1	9.1	54.4
	UOG	25	10.4	10.4	64.7
	UOT	60	24.9	24.9	89.6
	UOM	25	10.4	10.4	100.0
	Total	241	100.0	100.0	

Table 5  
*Descriptive Statistics*

<b>Descriptive Statistics</b>					
	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Q1	241	1	5	3.68	.922
Q2	241	1	5	3.99	.899
Q3	241	1	5	3.98	.880
Q4	241	1	5	3.64	.943
Q5	241	1	5	3.48	1.049
Q6	241	1	5	4.50	
Q7	241	1	5	4.18	.832
Q8	241	1	5	4.13	.844
Q9	241	1	5	3.92	.936
Q10	241	1	5	3.97	.928
Q11	241	1	5	4.10	.696
Q12	241	1	5	4.37	.664
Q13	241	1	5	4.37	.730
Q14	241	1	5	3.89	.814
Q15	241	1	5	4.00	.716
Q16	241	1	5	3.86	.858
Q17	241	1	5	3.71	.926
Valid N (list wise)	241				

## 5. Implications and Recommendations

This study's finding has both theoretical and practical implications. Theoretically, this study's argument is supported by the human capital theory. The theory has several implications for economic well-being and employment. For instance, the theory supports the idea that investment in education and training can lead to higher wages and greater economic mobility. Therefore, policies that promote education and training can help to reduce poverty and income inequality. Secondly, the theory suggests that employers will invest in human capital by offering training and development programs, as it will increase their productivity and competitiveness. Thirdly, the theory also implies that the mismatch between the skills required for the jobs available in the economy will lead to unemployment and underemployment, which can be addressed by investing in the human capital of individuals. Furthermore, the findings of this research are valuable in terms of practice having an understanding about the existing policy commitments for employability skills and execution of standards for skills development at the universities. After in-depth document analysis, semi-structured interviews and surveys, this study serves as a baseline study for universities, governments,

and CPEC-related projects. This would help to design programs which help to prepare such policies that would be helpful for solving the existing and future problems of the province. In addition, the findings reveal that academicians, policy experts and decision makers in the government need a platform whereby they could connect and propose a comprehensive scientific framework about emerging and innovative skills for the success of CPEC. More specifically; the stakeholders shall recommend the universities to rethink of their curricula and programs and further devise a proper mechanism for skilled oriented initiatives in their respective universities.

Although these research outcomes are preliminary but it obtained substantial data on grounded realities about graduates' 'employability skills and industry demand which would have a great impact on promoting economic well-being of the people of Balochistan. For instance; that could decrease unemployment and reducing the poverty, maximizing the income, and improving the living standard of the local marginalized community. The study is also important in identification of skills gaps in students at par with industry requirements in particular to CPEC related business activities which are demanding higher level of required skills. This research will also help to understand the skill demands of industries those are directly involved in CPEC. For instance; energy sector, ports and shipping, infrastructure, service & tourism, maritime sectors etc.

Furthermore, it is recommended that the universities should emphasize to embed new modern and necessary skill-sets to their graduates so that they better fill CPEC and other industries job requirement. In this regard, Higher Education Commission should introduce a policy for skill development program in curriculum as an explicit policy that requires preparation and coordinated efforts to have an impact on the students' learning process. It is also highly recommended that besides the teaching of employability skills, universities must have a proper mechanism for career guidance, counselling and placement sections to guide and encourage students towards suitable career choices and opportunities. Form the findings it revealed that students do not take internships very seriously which enable the students to gain practical knowledge and work experiences during their studies.

Since the CPEC projects are under the support of the Chinese government and the government of Pakistan and universities need to engage and have fruitful agreement for the universities of Balochistan eventually that will inevitably have an impact on the local students. For instance, the Chinese government shall award scholarships for the students of Balochistan in those disciplines that are not being offered in public universities of Balochistan. In a nutshell, policymakers and higher education institutions should therefore take steps on immediate basis to address social processes in order to develop graduate employability effectively in the province.

## 6. Conclusion

This preliminary study could not fully answer our research questions about the skills that make a graduate more employable in the market specifically in the context of CPEC. However, based on the available literature examined herein, interviews from relevant persons, and understanding of students' perception indeed the research outcomes are helpful to reach a point of argument where we can claim the limitations of our higher education system are greater than strengths which demands a significant policy reforms for better future of graduates. In fact, developing robust policies towards the teaching of employability skills should be a top priority for higher education institutes. This will enable universities to produce graduates who can respond to today's market demands and would be accommodated in the future technological and industrial revolution.

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## Appendix

Semi-structural interview questions

Interview protocol: Semi-structured interviews.

Project: An examination of the extent that academics integrate employability skills in their students

Date of interview

Time of interview

Place

Interviewer

Interviewee:

Position of interviewee:

Project Description

Proposed Questions

1. What is your understanding of employability skills?

2. What is the general situation of skilled worker in the Province/District/City? Any link with the current development?

(Probe: ask to explain a little more if information is insufficient)

3. What type of skills required here (province/ district/CPEC etc.?)

(Prompt: give some examples and ask some more types of skills)

4. What skills do you think your students should possess upon the completion of your subject?

5. Any Specific reason of unskilled people besides education?

6. What would you describe as your role in preparing future graduates with required employability skills?

7. What do you know about the university's direction with regard to the integration of employability skills within curriculum?

8. To what extent is the integration of employability skills integrated at the program level of your faculty?

9. What do you think is the best way to prepare students with a broad range of skills that will prepare them for employment in the workplace?

- What is the purpose of lectures/tutorials/workshops/e-learning delivery?

- What is the purpose of assessment?

- Room that you teach from – is it conducive to the practice/learning of employability skills?

10. Have you made any recent changes to your curriculum that seeks to include employability skills? If yes, in what ways? If not, why not?

11. Do you see the need to make changes to your curriculum in the future? Why/Why not?

12. What are the major hurdles in creation of skilled worker?

(Probe: Why do you think that these are the hurdles? How can we remove these hurdles?)

13. What are the current skills-set required for the people?

(Probe: How these skills-set be can be created as well as expanded? and sustained?)

14. What are the future requirement for skills-set?

(Prompt: extract source by specifying existing projects by government, other)

15. Which specific area/industry/sector/company can help more in creating more skills?

(Probe: Name of them. Why? How much? Which option is better and why?)

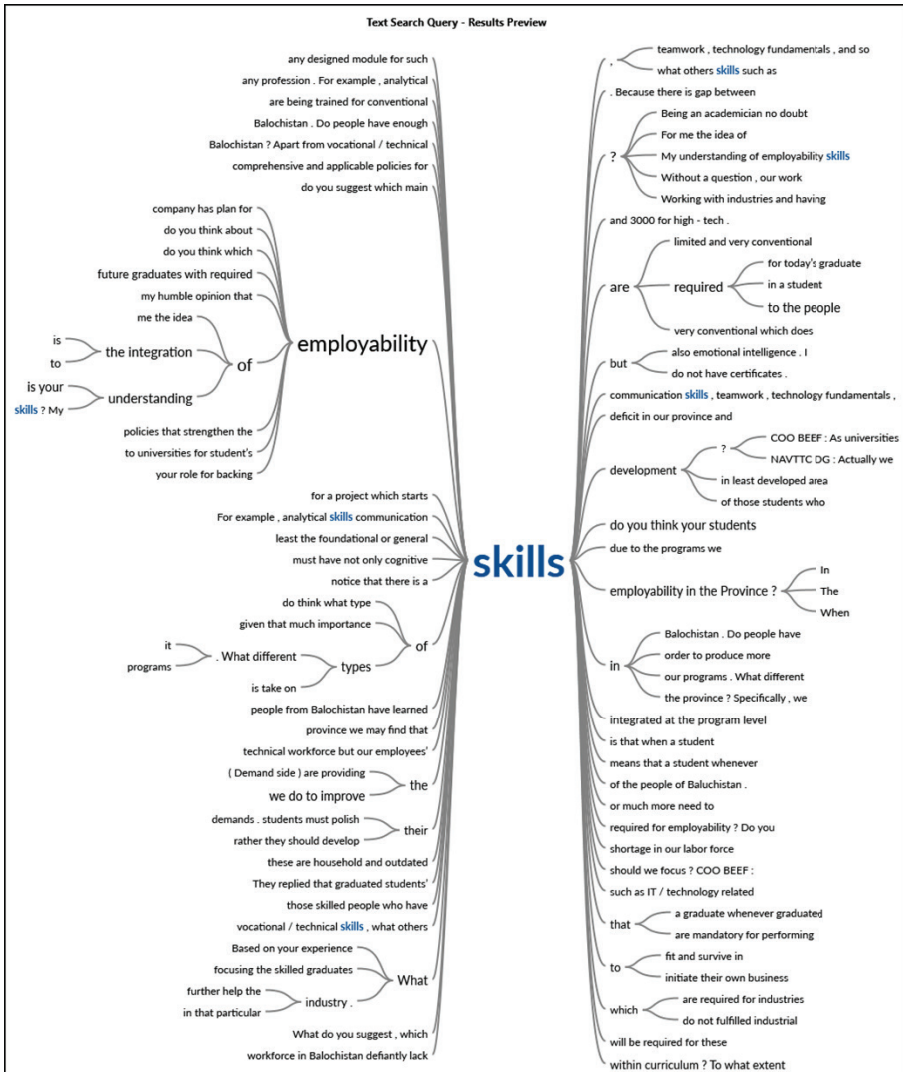
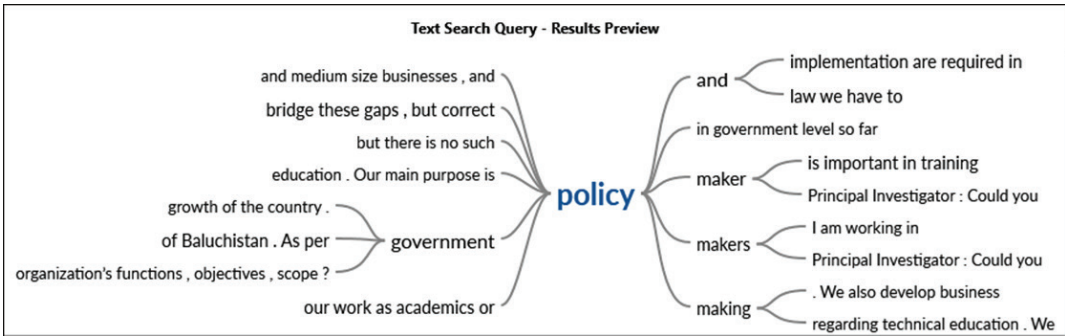
16. What different types of skills are required to the people of Baluchistan especially in CPEC project?

(Probe: How to develop each skill that is mentioned, what infrastructure is required to grab them? Any partnership is possible? Whether government can help? If yes how?

17. Can you give any further suggestions to improve the overall skills requirement in the Baluchistan?

18. What else can we do to improve the skills employability in the Province?

NVIVO QUALITATIVE OUTPUTS





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## Instructions / Guidelines for the Authors

### (General Instructions)

- 1 Papers must be in English.
- 2 PBR is a business journal covering all subject areas of relevance to business in Pakistan. Research in the areas of Finance, Human Resources, Management, Informatics, Marketing, Business Psychology, Economics and issues related to other business areas are especially encouraged.
- 3 Submission of a paper will be held to imply that it contains original unpublished work and is not being submitted for publication elsewhere. The editors do not accept responsibility for damages or loss of papers submitted.
- 4 Manuscripts should be typewritten on one side of the page only, double spaced with wide margins. All pages should be numbered consecutively, titles and subtitles should be short. References, tables and legends for figures should be typed on separate pages. The legends and titles on tables and figures must be sufficiently descriptive such that they are understandable without reference to the text. The dimension of figure axis and the body of tables must be clearly labelled in English.
- 5 The first page of the manuscript should contain the following information; (i) the title; (ii) the name(s) and institutional affiliation(s); (iii) an abstract of not more than 200 words. A footnote on the same sheet should give the name and present address of the author to whom reprints will be sent.
- 6 Acknowledgements and information on grants received can be given before the references or in a first footnote, which should not be included in the consecutive numbering of footnotes.
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  - b. Newbery, David M.G., 1975, The use of rental contract in peasant agriculture, in: Reynolds, ed., Agriculture in development theory, New Haven: Yale University Press p.3-40.  
For periodicals
  - c. Baumol, W.J., 1982, Applied fairness theory and rational policy, American Economic Review, 72(4): 639-651.
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- 8 Important formulae (displayed) should be numbered consecutively throughout the manuscript as (1), (2), etc., on the right hand side of the page where the derivation of formula has been abbreviated, it is of great help to referees if the full derivation can be presented on a separate sheet (not to be published).
- 9 Footnotes should be kept to a minimum and be numbered consecutively throughout the text with superscript Arabic numerals.
- 10 The references should include only the most relevant papers. In the text, references to publications should appear as follows: "Khan (1978) reported that...." Or "This problem has been a subject in literature before [e.g., Khan (1978) p. 102]." The author should make sure that there is a strict "one-to-one correspondence" between the names (years) in the text and those on the list. At the end of the manuscript (after any appendices) the complete references should be listed as: for monographs and books. Ahmad, Jaleel, 1978, Import substitution, trade and development, Amsterdam: North-Holland, For contributions to collective works Newbery, Daved M.G., 1975., The use of rental contract in peasant agriculture, in: Reynolds, ed., Agriculture in development theory, New Haven: Yale University Press p. 3-40.
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