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Editorial Note

In this issue, the following research papers relating to, Organizational behavior, OCBs, CSR, BI and firm performance, Perceived Impact office design on performance, CPEC, and Impact of debt financing on firm performance are presented.

Teachers' Organizational Citizenship Behavior (OCBs) in Pakistan

The current research measures the organizational citizenship behavior of university teachers in Pakistan. Further, it explored the differences in the levels of the OCBs.

Linking Organizational Corporate Social Responsibility Practices and Organizational Citizenship Behavior in Pharmaceutical Industry of Pakistan

The present study examines how Organizational Corporate Social Responsibilities (CSR) practice towards four different stakeholders of organization including employees of organization, Government agencies, customers of organization and non-governmental institutions affect employees' organizational citizenship behavior (OCB).

Managing Change with an Intervention of Psychological Contract

In this research paper the scholar explains that Organizations assess their feasibility to manage change by weighing its response and outcome, whereby humans seem most important. This study engaged mid-level professionals with a working experience of either public or private organizations of Information and Communication Technologies in Pakistan. It is revealed that the association of psychological contract and its fulfillment towards change management and willingness to change is quite posturing a positive impact.

Business Intelligence and firm Performance:

Assessing value and future directions in Pakistani firms

The purpose of study is to examine how Business Intelligence (BI) enhances the firm's performance in Pakistani firms. Pakistan is a growing country and BI is supposed to be in its initial stages in Pakistan while the data about BI implementation and use in Pakistani

firms are also not available sufficiently, especially in statistical patterns. BI system quality is based on BI infrastructure, functionality and self-service, that aids in getting a more serious competitive advantage and increasing firm performance by enhancing performance measurement capabilities.

Does Procedural justice leads towards the feelings of Compliance, and Cooperation with, and empowerment of law enforcement agencies in Pakistan: The Mediating role of Moral Solidarity between police and community

This paper aims to identify why or why not the police get support and cooperation from the public. Relational models of authority argue that people measure the degree at which the police consider the moral values of groups by examining the equity of the processes they utilize practice their authority. Additionally, according to the approach of social identity, cooperation of the people along the dept. of police is encouraged in component by their decision that the police are archetypal representative of the moral values of the groups.

Examining the Association of Organizational Justice, Job Motivation and Organizational Citizenship Behavior

This study has examined the chain collaboration of organizational justice and job motivation for the management of better performance of nurses through organizational citizenship behavior in the private hospitals, Hyderabad, Sindh.

Perceived Impact of Office Design on Performance of Faculty: Evidence from Faculty Members working with leading Higher Educations Institutes of Karachi

Office design is treated as one of the most important elements which affects employee performance and well-being. Researchers from all over the globe are continuously striving to improve this issue through systematic research activities. Although in Pakistan research work associated with this issue is not only rare but also does not have completeness and most of the articles are banking and telecom industries. Thus, there is potent need to analyze the impact of office design elements with detailed perspectives of variables on larger population size. This study tries to combine variable inventory from prior studies and conduct the research on higher educational institutes which are most dominant part of higher education sector of Pakistan.

Strategies for making CPEC Inclusive for Unskilled Workers

In the domain of the public-sector strategy prioritizing, very little work has been done bearing the psychology and behavior of the unskilled worker in the country. The employment of unskilled labour is under-represented in majority of the countries that dot the globe. Not surprisingly, documented statistical evidence of the World Bank Report 2015 confirmed that the unskilled labour force in these economies represented up to 50 to 65% of the informal and formal work force.

In our exploratory field study that was conducted in two Special Economic Zones of Nowshera and Islamabad; we expose the economic and social flaws of the very foundations of labour markets in Pakistan. Hence, concluding that if policy-makers do not address the flaws urgently, the whole exercise of making SEZs will go in vain.

Impact of Debt Financing on Firm Performance: A Case of Business Sector of Pakistan

It is essentially important to remove the ambiguity as to which measure of financing in a company's capital structure proves as more favourable in improving its performance, or contrarily if there is no relevance of capital structure choice on the company's value creation. For conducting this study, a leverage ratio of Debt-to-Equity and performance measurements of Return-on-Assets, Return-on-Equity and Tobin's-Q ratio have been used as independent and dependent variables respectively to check for the impact of debt financing level on a firm's performance outcomes.

In the next issue the burning theme is suggested "Economic and Business growth and Employment to All".

Sincerely,

Prof. Dr. Shafiq ur Rehman

Editor

Journal of Business Strategies

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TEACHERS' ORGANIZATIONAL CITIZENSHIP BEHAVIOUR IN PAKISTAN: AN INTER-UNIVERSITY COMPARISON

Nauman A. Abdullah*

ABSTRACT

The current research was conducted to measure the organizational citizenship behaviours of university teachers in Pakistan. Further, it explored the differences in the levels of the OCBs of public sector and private sector university teachers. Using quantitative approach a descriptive survey research method was employed. Through multistage stratified random sampling technique, the data were collected. An adapted close-ended questionnaire measured at a 5 point Likert scale was administered. Validity and reliability were ensured through expert opinions and a pilot study before the actual data collection. After data cleaning, statistical analyses were applied on 298 questionnaires in the spreadsheet of SPSS version 22.0. Results revealed significant differences in the levels of OCBs of different university teachers. Further differences on analyzing the demographic variables were observed. Practical implications of the findings can be helpful for the practitioners, policymakers, and university administration.

Keywords: *Organizational Citizenship Behaviours, University Teachers, Pakistan.*

INTRODUCTION

Organizational Citizenship Behavior (OCB) has recently become an interesting variable for research in the disciplines of educational administration and educational psychology. With roots in the organizational behavior, this variable is of key value to the field of education.

Tracing the history of OCB, Katz (1964) reported that to work efficiently and effectively there should be volunteer devotion to the institution. Bateman and Organ (1983) succeeded Katz's point and coined

*Lecturer, Education, Virtual University of Pakistan, Lahore.

the term as “citizenship behaviors”. Afterwards Smith, Organ, and Near (1983) attributed such behaviors as “organizational citizenship behaviors” (OCBs). Organ, later considered to be the Guru on the OCBs explained it in these words “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate, promotes the effective functioning of the organization” (Organ, Podsakoff, & Mackenzie, 2005). Lately, academia and researchers have predominantly laid stress on the significance of OCB. Regarding the factors and dimensions of these OCBs, Podsakoff, MacKenzie, Paine, and Bachrach in (2000) did an extensive literature review and discussed more than 30 varied dimensions of the organizational citizenship behaviours. Organ (1988) described these behaviours into 5 major categories: altruism, civil virtue, conscientiousness, courtesy, and sportsmanship.

In a study of Pakistani universities Abdullah and Akhtar (2016) used the conceptual framework of OCB, which included five factors/ elements: altruism, civic virtue, conscientiousness, courtesy, and sportsmanship. Conscientiousness can be explained as the degree to which employees consider the job tasks beyond what is required from them as a minimum requirement. Courtesy is understood in terms of the mannerism and respect that employees offer to colleagues which makes the environment collegial and cordial to work (Abdullah, 2016). Altruism implies selflessness of an employee while helping and assisting fellow workers. Sportsmanship can be expressed as letting go personal benefits and differences in the larger interest of the organization while performing certain given assignments (Abdullah & Chaudhry, 2018). Civil virtue addresses the positive engagement of employees that relate to the socio-political environment of the organization. Williams and Anderson (1991) discussed that these five dimensions of Organ (1988) could be summed up into two broader categories that are: Organizational citizenship Behaviours for Individuals (OCB-I) and Organizational citizenship Behaviours for Organizations (OCB-O).

LITERATURE REVIEW

The theoretical background of the organizational citizenship behaviours was connected with the social exchange theory, which says that employees do good when they expect good in return from the individuals as well as from the organizations (Cropanzano & Mitchell, 2005; Wayne, Shore, & Liden, 1997).

Organizational Citizenship Behaviour (OCB) promotes organizational effectiveness (Yen & Neihoff, 2004) and it produces better results for the organizations (Dick, Grojean, Christ, & Wieseke, 2006; Joireman, Daniels, George-Falvy, & Kamdar, 2006). Lower performances and higher turnover rates are observed where OCBs lack (Lamude, 1994; Motowidlo, 2003). The antecedents and predictions of the construct of Organizational citizenship behaviours reflected that this variable is of pivotal significance in order to maintain the overall feel-good atmosphere in the institution as well as for the wellbeing of the employees.

Maximum research studies have been conducted on OCB in the West, with USA, Australian, and European samples (Farh, Zhong, & Organ, 2004). Research in other contexts, especially in Pakistan, is limited in number. Naqib, Hanson, Bangert, Kannan, Sharma, and Ghaffar (2019) used the same five factors measured the levels of OCB in secondary schools in Pakistan. They found out that OCB increases productivity of teachers and school leaders. Ali and Siddiqui (2019) OCB in the corporate sector of Pakistan and found out that it has strong basis from transformational leadership. Khan, Yasir, Yusof, Bhatti, and Umar, (2017) studied OCBs in the academic staff of a public sector university in Pakistan. Their study revealed that OCBs were present in a moderate level in the 191 sampled faculty members. They also found its correlation with the ethical leadership practices in that sampled university. These studies signifies the role OCB in the institutions and their association with different leadership roles and styles.

Besides these, there are other studies that have been conducted in the recent past in Pakistan that include OCBs. For example, Zhijie, Asghar, Gull, Shi, and Akbar (2019) studied the OCBs with other factors of job stress and organizational politics in five universities of Faisalabad. Naeem, Malik, and Bano (2014) examined OCBs in pharmaceutical industry in Pakistan. Rehman, Mansoor, Rafiq, and Rashid (2011) explored OCBs with leadership and training and development factors in corporate sector of Pakistan. Ghaus, Lodhi, and Shakir, (2018) investigated OCBs along with Leader member exchange in seven public and seven private sector universities in Pakistan. Khawaja (2017) studied OCBs with multiple other variables in the health sector of a Pakistani province. This shows that OCBs are studied with multiple other variables in different sectors, globally and in Pakistan, but entire focus on studying OCBs in education sector is slightly missing.

Hence, this research was carried out to explore the OCBs of teachers of the university sector in Pakistan. This study further explored the comparison at inter-university level. This study is significant in reporting the descriptive picture of the organizational citizenship behaviours in the university sector of Pakistan. It is of importance to the teachers, administration, practitioners, and policy makers. It might also pave the way for new research in similar domains. The comparison of inter-university level has reflected upon the practices in both sectors. For the betterment of the practices and training sessions, the findings of this research may add substantially to the already available literature.

Objectives of the study

Based on the review of the related literature and scope of the study following objectives were made:

1. Explore the levels of OCBs in university teachers of Punjab.
2. Find differences in the levels of OCBs at inter-university level in terms of the sub-scales taken as altruism, conscientiousness, sportsmanship, civil virtue, and courtesy.
3. See the difference in the levels of OCBs at inter-university level in Punjab based on different demographic variables?

Aligned with the research objectives, the researchers made this study following research questions. (1) Do at inter-university level teachers display a significant level of OCBs? (2) To what extent level of OCBs differ significantly in teachers of different universities of Punjab in terms of the sub scales taken as altruism, conscientiousness, sportsmanship, civil virtue, and courtesy?(3) Do demographic variables provide any basis for a significant difference in the levels of OCBs displayed by teachers at different universities of Punjab?

Methodology

For this study, descriptive survey method was employed. The data were collected through a cross-sectional research design which aligned with the descriptive survey method. The data were taken by the subjects at one point in time through a close-ended questionnaire.

Sampling Design

Population of the study comprised of the universities that are recognized by the Higher Education Commission (HEC) of Pakistan. The

public and private sector universities of Punjab province of Pakistan were the target population. Multistage stratified random sampling technique was employed. In the first stage, 1/3 (33%) of the universities were selected randomly. Second stage sampling was done by randomly selecting 1/3 (33%) faculties of the total faculties of those universities. Lastly, 1/3 (33%) of the total teachers available in those faculties were randomly selected by the researchers. A total of 410 university teachers was selected as the sample in this research.

Instrumentation

Organizational citizenship behavior scale (OCB-S) a five dimensional instrument for OCB was utilized in this study. Abdullah and Chaudhry (2018) also used the same tool and reported the reliability to be 0.83 measured at Coefficient of Crobnbach Alpha and for each factor of OCB the reliability was reported above 0.70. Abdullah and Akhtar (2016) adapted the tool for educational perspective and modified a few items to fit educational institutional context. They reported the factor wise reliability to be above 0.70 for each factor of the OCB-S. Hence this study adopted the same tool used in that research.

Procedure

Data were taken personally through OCB-S on a close-ended Likert type scale. The tool was assigned values of 5 to 1 for 5 representing strongly agree and 1 represented strongly disagree. Ethical standards were followed while data collection. Permission was sought through letter duly signed by the concerned authorities of each university. For piloting purpose 30 questionnaires were got filled from teachers other than the actual sample of the study. The results of the piloted questionnaires were minutely observed to incorporate changes if required. Finally, the data collection was made. Negative items were reversely coded and entered into the SPSS spreadsheet. In total, 312 questionnaires were filled and received back with a response rate of 76%. After data cleaning, 297 questionnaires were used for further analysis and interpretations. By factor the reported reliability was 0.73 for Altruism, 0.77 for Conscientiousness, 0.67 for Courtesy, 0.69 for Civil Virtue, and 0.68 for Sportsmanship.

Results

The results of demographic variables of this empirical study in Punjab revealed that out of 297 total subjects 159 respondents were males and

138 respondents were females that conforms to the notion of the study of (Abdullah & Akhtar, 2016) about the incremental rise in the females in teaching profession at university level. Out of 297 respondents, almost 85% (252) respondents were enjoying permanent job, it showed that in the Public sector university teachers are hired as permanent faculty members while only 15% (45) respondents were on a contract which was because of the hiring trend in private universities. The majority of the university teachers in the sample of this study were Lecturers, which constitute 58.6% (174) of the total sample. Assistant professors were 86 in number making 29% of the sample, associate professors were 24 in number, whereas full professors were only 13 in this sample. This shows that up in the cadre, universities in Punjab have relatively lesser ratios of the teachers. In age, the category of 25-35 years showed high in number, 152 respondents belonged to the said category which was encouraging as young persons were over whelmingly present in the teaching profession. MS/ M. Phil category illustrated 119 respondents, while 68 respondents were Doctoral degree holders, 24 respondents were with Post doc qualification. It showed the dominance of higher education degrees in university teachers.

There were 203 teachers in the category of having experience from 01-10 years, which is obvious because the majority of the respondents were lecturers, 74 teachers were having experience ranging from 11 years to 20 years while 20 teachers were having an experience of above 20 years. Married teachers were 189 and unmarried were 108 in number. Different universities of Punjab had various faculties. Different departments were under different faculties in the universities; the researcher took the common departments functional under various universities and made eight (8) most common faculties in the selected universities. In this sample, 87 teachers were belonging to the faculty of Arts & Humanities/ Behavioural & Social Science faculty. Management sciences faculty had representation of 72 teachers, 41 teachers were belonging to the pure sciences faculty, Computer and IT faculty had 23 teachers, commerce faculty had 40 teachers, law faculty had 5, Life sciences faculty showed 8, and Oriental learning/ language faculty had 21 teachers representing them in this sample. From public sector universities 196 made up the sample while 101 teachers were belonging from private sector universities of the Punjab, which reflected that private universities had relatively less faculty members.

The organizational citizenship behavior in university teachers of Punjab was measured in terms of sub-scales like altruism, conscientiousness, courtesy, sportsmanship, and civil virtue. Item was mean scores and standard deviations were calculated. The item wise mean scores were statistically significant and were above three (3) which was taken as a cut-off score (Abdullah, 2019) for all positive items. The mean scores for negative items were significantly below 3 which also meant that the subjects of the study showed organizational citizenship behaviours in the universities.

On analyzing factor wise mean score in table 1, it was revealed that university teachers rated the conscientiousness factor of organizational citizenship behavior at the top ($M= 4.21, SD= 0.57$), followed by the courtesy factor ($M= 4.17, SD= 0.58$), civil virtue ($M= 4.16, SD= 0.69$), altruism ($M= 3.70, SD= 0.67$) and sportsmanship factor at the last ($M= 2.42, SD= 0.66$). All the negative items and having a mean score below the cut point of 3 reveals that the respondents did not rate those items high.

Table 1: By- factor mean score of OCB

SR #	OCB Factors	<i>M</i>	<i>SD</i>
01	Altruism	3.70	0.67
02	Conscientiousness	4.21	0.57
03	Sportsmanship	2.42	0.66
04	Courtesy	4.17	0.58
05	Civil Virtue	4.16	0.69

When independent sample t-test was applied to the OCB in terms of the university type (public or private) in table 2, significant mean difference was revealed at $p < 0.05$. The effect size of the difference was less i.e. 0.13. The mean score of public sector university teachers ($M= 73.17, SD= 6.34$) was significantly more than that of private sector ($M= 71.22, SD= 8.20$). It meant that the former were showing extra organizational citizenship behavior.

Table 2: t-test on overall OCB with regard to university type

University type	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Effect size
Public	73.17	6.34	295	2.25	0.02	0.13
Private	71.22	8.20				

On further exploring the factor wise difference in the university teachers of public sector and private sector in table 3. Independent sample t-test was applied on the altruism which revealed a significant mean difference at $p < 0.01$. The mean score of public sector university teachers ($M= 18.8$, $SD= 3.24$) on the factor altruism was significantly more than the mean score of private sector university teachers ($M= 17.77$, $SD= 3.42$). It means that the public sector university teachers show more altruism at their workplaces than private sector university teachers.

Table 3: t-test on altruism sub scale of OCB with regard to university type

University type	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Effect size
Public	18.88	3.24	295	2.72	0.007	0.16
Private	17.77	3.42				

Table 4 displays Independent sample t-test on courtesy factor in terms of the university type (public and private). It revealed significant mean differences at $p < 0.05$. The mean score of public sector university teachers ($M= 12.70$, $SD= 1.71$) was significantly more mean score than that of the private sector university teachers ($M= 12.18$, $SD= 1.78$). It means that public sector university teachers showed more courtesy than the private counterparts.

Table 4: t-test on courtesy sub scale of OCB with regard to university type

University type	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Effect size
Public	12.70	1.71	295	2.37	0.018	0.14
Private	12.18	1.78				

Table 5 depicts independent sample t-test on the sportsmanship factor in terms of the gender of teachers. The results revealed significant mean differences at $p < 0.01$. The mean score of male university teachers ($M= 12.58$, $SD= 3.45$) was significantly more than the mean score of female university teachers ($M= 11.58$, $SD= 3.06$) which meant that male teachers of universities show more sportsmanship than their female counterparts.

Table 5: t-test on the sportsmanship of university teachers on the basis of gender

Gender	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Effect size
Male	12.58	3.45	295	2.62	0.009	0.15
Female	11.58	3.06				

$P < 0.01$

Table 6 displays independent sample t-test was applied on the courtesy factor on the basis of job type (permanent or contract) significant mean differences were revealed at $p < 0.05$. The mean score of permanent university teachers ($M = 12.61$, $SD = 1.72$) was significantly more than that of the contractual university teachers ($M = 12.01$, $SD = 1.88$). It meant that teachers who were permanent showed more courteous behaviours at the workplace than the teachers who were on contract basis.

Table 6: Independent sample t-test on the courtesy of university teachers on the basis of job type

Job type	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Effect size
Permanent	12.61	1.72	295	2.11	0.03	0.16
Contract	12.01	1.88				

On the basis of marital status of the university teachers the independent sample t-test was applied on civil virtue behaviours in table 7. Married teachers showed significantly more mean score ($M = 8.46$, $SD = 1.37$) as compared to the mean score of teachers who are singles ($M = 8.03$, $SD = 1.41$). The t-value was 2.53 significant at $p < 0.05$. It means that married teachers show more civil virtue behaviours than single teachers.

Table 7: Independent sample t-test on the civil virtue of university teachers on the basis of marital status

Marital status	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	Effect size
Married	8.46	1.37	295	2.53	0.012	0.15
Single	8.03	1.41				

Table 8: One-way ANOVA on the OCB of university teachers on the basis of universities

	Sum of Squares	<i>df</i>	Mean square	<i>f</i>	<i>p</i>	Effect size
Between groups	1291.94	10	129.19	2.74	0.003	0.088
Within groups	13445.74	285	47.18			
Total	14737.68	295				

Table 8 illustrates that One-way ANOVA was applied on the OCBs of university teachers on the basis of different universities selected in the sample. It revealed significant differences at p value less than 0.05. For further clarity Post HOC test of Tukey was applied.

Table 9: *Post HOC test (Tukey)*

University	University	Mean difference	<i>P</i>
UCP	LCWU	-7.95	0.006
	GCUF	-7.47	0.017

Post hoc test of Tukey was further applied to explore the differences in the universities in table 9. It revealed that the LCWU and GCUF were showing more mean score than the UCP. It is because the LCWU and GCUF are public sector universities and UCP is a private sector university. So it verifies the results of this study that public sector university teachers expressed more OCBs as compared to the teachers of private sector universities.

DISCUSSION

The present study was carried out to study in detail the organizational citizenship behaviours of university teachers of Punjab. This relatively lesser studied variable in educational settings in Pakistan is reported to have multi-faceted significance in the educational institutions. For that, following research questions were followed in this research. *Research question 1*. Do at inter-university level teachers display a significant level of OCBs? To answer this question, descriptive statistical techniques were applied. Through Mean scores and Standard Deviations the levels of OCBs were studied and the level was reported to be above the cut score, which was taken as 3, for all the positive items of the questionnaire. For the negative items the OCB levels of the university teachers were well below the cut score 3, which means that university teachers showed significant levels of OCBs in their respective universities. The results of this study are aligned with (Ali & Sidique, 2019; Khan, et al. 2017). This finding is important to note here, as OCB is a relatively newer studied variable in universities, teachers reporting to be significantly showing OCBs in the universities is encouraging for the university administrators and further outputs related with OCBs shall be studied in the future. Hence this research question is achieved here.

Research question 2. To what extent level of OCBs differ significantly in teachers of different universities of Punjab in terms of the sub scales taken as altruism, conscientiousness, sportsmanship, civil virtue, and courtesy? The most reported factor of the organizational citizenship behavior was conscientiousness, next was the factor courtesy, then came

the factor civil virtue, followed by the factor altruism, the least significant factor was sportsmanship. The findings are of significance for the administrators and practitioners as this research illustrates that, university teachers were showing more conscientiousness. However, these findings are restricted to the sample and might not be generalizable to other samples across Pakistan. As context and culture plays a defining role in the behaviours therefore, results from other provinces might show significant disparities. There is also a limitation of the study that it does not probe the reasons behind this array of factors. A research determining the contributors toward these OCB factors is recommended by the author.

Research question 3. Do demographic variables provide any basis for a significant difference in the levels of OCBs displayed by teachers at different universities of Punjab? The results indicated that public sector university teachers were significantly more positive on displaying organizational citizenship behaviours in the workplaces as compared to the private sector university teachers. The factors such as altruism and courtesy were high for the public sector university teachers. The results are congruent with the findings of Ghaus, Lodhi, and Shakir (2018), which also indicate the high levels of OCB in public sector. Another interesting finding of the present study was that male teachers reported to be showing more citizenship behaviours in terms of sportsmanship than the female teachers. The teachers who were permanent in the jobs were displaying more citizenship behaviours in comparison to the teachers who were on contract. Married teachers reported to be high on the civil virtue behaviours in comparison to the female teachers. These findings are worth noting for the university administration in similar settings as these behaviours were influenced by the demographic variables. These findings do have practical implications for the policy makers, as these results can be utilized in training workshops and recruitment procedures.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions that have been drawn from this empirical evidence include the positive sign of existence of the organizational citizenship behaviours in the university sector teachers in Pakistan. Much attention and resources are given to bring positivity in the educational institutions of Pakistan, these results would be helpful in portraying the ground realities of university teachers in Pakistan. A comparison of public and private sector university teachers concluded that public sector and permanent jobs bring positive behaviours in the teachers; hence they show

more citizenship behaviours at their workplaces. The recommendations for policy makers and university administration were to consider the demographic variables for promotion, duty allocation, and delegation of authority. The training sessions shall be conducted considering these demographic variables and further research are recommended to establish causal relations for the organizational citizenship behaviours in the university sector. This study serves as a contribution in the literature of existing OCBs of teachers it has implications for further research in terms of exploring correlations of OCBs with different organizational variables especially leadership styles of school leaders. The role of OCB in employees' performance and overall institutional performance also needs to be investigated.

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LINKING ORGANIZATIONAL CORPORATE SOCIAL RESPONSIBILITY PRACTICES AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR IN PHARMACEUTICAL INDUSTRY OF PAKISTAN

Mohsin Yasin Khan*, Waqar Akbar**, and Madiha Shaikh***

ABSTRACT

The present study examines how Organizational Corporate Social Responsibilities (CSR) practice towards four different stakeholders of organization including employees of organization, Government agencies, customers of organization and non-governmental institutions affect employees' organizational citizenship behavior (OCB). Further moderating role of employees' perception of importance of Corporate Social Responsibility (CSR) is also examined. 357 employees working in pharmaceutical industry of Pakistan participated in the study by giving their input on self-administrated questionnaire. Using the partial least square structural equation modeling, the results reveal that dimensions of OCSR except for OCSR towards Government have significant impact on Organizational Citizenship behavior and the most significant dimension among four is CSR towards NGOs and Society. Further, Perceived Importance of CSR has no significant moderating effect on any of the 4 dimensions of CSR studied in this research. The results are useful for policy makers at national and organizational levels to craft the CSR policies at national and international levels. Further the results also help organizations to understand the importance of CSR from employees' perspective and prepare HR strategies to align OCSR goals at strategic and operational levels.

Keywords: Organizational Corporate Social Responsibility, Organizational Citizenship Behaviors, Importance of CSR, Pharmaceutical industry

*, **, ***Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology, Pakistan.
e-mail: waqar.akbar@szabist.edu.pk

INTRODUCTION

CSR or Corporate Social Responsibility has never been in discussion this much as now it has been discussed these days. On one hand organizations are becoming more and more aware of the significance of their (CSR) Corporate Social Responsibilities and on other hand Government bodies, NGOs and other stakeholders, due to the issues like pollution, employment, discrimination etc., are continuously working hard for making organizations to become more accountable about their social responsibilities towards all the concern stakeholders and contribute as much as they can for the society they are linked with (Saha, 2018; Sarfraz, Qun, Abdullah & Alvi, 2018). In this modern era of Facebook, Twitter, WhatsApp etc., it can easily be observed that people also have now become more aware of the benefits and dangers of large organizations, corporate social responsibilities of the companies. Same is the case with companies, every organization besides being acting responsibly and beside the pressures of different institutions, are now accepting the fact of gaining great number of benefits from these CSR activities. It has no doubt become an effective tool for gaining marketing advantage and brand creation. Just for an example, children in schools are taught to take care of “Earth” by various do’s and don’ts and by CSR advertisement of companies, companies can persuade / encourage children or children can persuade parents to buy products of the socially responsibly organization that they believe to be working for good of this earth. This is just an example of that at what level this corporate social responsibility of any organization can affect. Many people believe that corporate social responsibilities (CSR) are just another way of large organizations to cover their negative contributions to the environment and other stakeholders, which are compared to be very less than what their negative effects are but our debate here in this paper is not about that.

As people and organizations both are becoming more and more aware of the role and importance of Corporate Social Responsibilities of organizations and the fact that has been proven theoretically and empirically with the help of social identity theory, that employees not only identifying themselves with their organization has increased the importance of understanding the relationship of corporate social responsibility and employees’ behaviors but also impacts their performance in many ways like work-engagement, motivation, sense of loyalty and job satisfaction too (Abane, 2016; John, Qadeer, Shahzadi & Jia, 2019). As for companies CSR practices are becoming their license of

legitimacy (Roeck & Delobbe, 2012), tools for gaining marketing advantage and more importantly gaining competitive advantage by having motivated and committed employees. Consequently, organizations are now interested to explore more about corporate social responsibilities, as besides considering it as their social and moral obligation they are interested to utilize it as a behavioral tool for employees. As companies are involved in different dimensions of corporate social responsibilities like towards internal external customers, government and non-governmental organizations etc. It is also needed to be investigated that corporate social responsibilities practices towards which stakeholder have most impact on employees' behaviors. Furthermore, the fact of employees' perception about corporate social responsibility effecting the behaviors have also been evaluated in recent studies. As Saha (2018) mentioned the comparison of managers from USA and South Africa holding different perceptions for corporate social responsibilities. Manager from USA were more inclined towards societal responsibilities of organizations compare to South African managers. Thus the moderating role of employees' perception about corporate social responsibility cannot be ignored. Several studies have been conducted to examine how CSR activities and OCB influences individual and organizational performance (Farid et al, 2019). Moreover, lot more studies are still continuing analyzing mediating role of CSR in employee related behaviors.

As pharmaceutical sector of Pakistan has always been in discussion for both positive and negative practices related to manufacturing, prices hikes, sales pressure etc. I myself being in this sector for about more than 7 years now and being employed to three difference pharmaceutical firms have observed pharmaceutical firms acknowledging the importance of CSR and involved in various CSR practices. This may be because of the fact that pharmaceutical sector is openly criticized for the reasons mentioned above and to lessen the effect of that, the pharmaceutical companies are more involved in CSR and also market their activities more than others. Being associated to such sector, employees of pharmaceutical industry must have some influence on their behaviors outcomes. Thus in line with previous study of Newman, et al., (2015) this study aims to contribute in literature by highlighting the importance of organizational corporate social responsibilities practices and examine how such practices towards four different stakeholders of organization can affect attitudes and behaviors of employee which in this study will be Organizational Citizenship

Behaviors, moreover what is role of employees' perception in effecting the relationship of corporate social responsibility and organizational citizenship behavior. The four stakeholders include employees of organization, Government agencies, customers of organization and non-governmental institutions. This study finds out the nature of relationship between employee perceptions of corporate social responsibility towards all four main stakeholders and Organizational Citizenship Behavior separately which allow us to evaluate that which specific CSR practices towards difference stakeholders contribute positively / negatively to OCBs of employees and also which practices have the strongest relationship with OCBs. Finally, conclusion of this study can help organizations who are willing to enhance the organization citizenship behavior of employees through CSR by focusing on practices which have most influence on OCBs as are identified in this study.

LITERATURE REVIEW

Social Identity Theory

Social identity theory suggests that it is natural that people like to be identified or want people to acknowledge their connection with any social group etc. especially if it has positive reputation in society (Jenkins, 2014). This connection can be of permanent or temporary nature for example a connection associated by caste of a person will remain permanent for life but a connection made from working in a specific organization will be of temporary nature as if employee left that organization the association with that organization comes to end though he or she still can associate himself with that organization as an ex-employee (Hogg & Turner, 1985). For example, in countries like Pakistan and India if people belong to higher castes they do associate their caste title with their names and feel proud to share it with others. Not only have that but if people are associated with any grouped they also try to follow the specific behaviors of that group so that their relationship with that group is considered to be true and strong. Turker (2009) indicates individuals seek for a positive social distinctiveness to create psychosomatic exceptionality for one's own group or to achieve intergroup uniqueness (Ashforth & Mael, 1989).

Organizational Citizenship Behavior

Organizational Citizenship Behavior (OCB) is the concept first realized in the decade of 70. This concept explains the discretionary behavior of an employee which cannot be explained or related to any extrinsic

rewards. This behavior leads employees to perform duties or tasks which their usual job descriptions do not require or which organizations do not usually enforce on employees (Abane, 2016). Organizational citizenship behavior of employees does not directly benefit them but they generally benefit the team and the organizations. Many Studies have correlated organizational citizenship behavior with characteristics like altruism, courtesy, and conscientiousness of the company. This behavior on an employee can also be a personality trait of an employee regardless of the any practices of organization or the employees' colleague, but studies have found high correlation between OCB and positive characteristics of the company e.g. CSR (Khan, et al., 2018; Rasool & Rajput, 2017; Abane, 2016). Thus it can take out that perceived organizations positive characteristic lead employees towards organizational citizenship behavior.

Social Identity Theory and Organizational Citizenship Behavior

The concept of social identity theory works similarly in the case of organizations (Hogg, Terry, & White, 1995). As people naturally associate themselves with any social or demographical groups, employees of any organization also associate themselves with their respective organizations (Rehmani & Khokhar, 2018). As per Turker (2009) the concept of associating oneself with its respective organization is a critical aspect of a person's identity. If employees consider their organizations is a positive contributor to the society they feel proud to be associated with that organization and they consider the contributions of the company and success of the company as their own. This feeling of oneness pushes employees to become more willing to contribute as much as they can or going extra mile for the organization. (Newman et al., 2015).

Corporate Social Responsibility

The whole concept of Corporate Social Responsibility or CSR is the product of the long-standing idea which believes that other than just maximizing profits for shareholders the organization has some social responsibilities to people, environment, society and other stakeholders around them (Carroll & Shabana, 2010). A more comprehensive definition of CSR quoted by Celik, Persson, and Tkáč (2018) from European Commission is

“CSR is a responsible approach of companies towards their impact on society. A responsible approach is characterized by compliance with the law and integration of environmental, social, ethical, human and consumer rights into their business models”

Luc (2016) state that CSR can ultimately lead to organization's victory if they are successful in handling the corporate operations in a way that can build an expectant influence on the society they operate. In its earlier form corporate social responsibility was considered to be limited to just charitable endeavors of large organizations. In last two and half decades its definition has been greatly transformed into a multi facet discipline. Now scope of corporate social responsibilities has been spread to different stakeholders, they are mainly characterized into two categories first is for the stakeholders inside the organizations referred to as Internal CSR and second is for the stakeholders present outside the environment of an organization such as government agencies, non-profit organizations working for betterment of people and societies, environment etc. (Rasool & Rajput, 2017). However, it can be argued that among all the major industries operating in a country medicine or pharmaceutical industry holds a huge accountability in terms of opting socially acceptable and ethical behaviors (Salton & Jones, 2015).

Dimensions of Corporate Social Responsibility

According to Cek and Eyupoglu (2019) CSR activities are auspiciously considered by individuals and employees in the current corporate environment and have become a crucial element especially in developing countries like Pakistan, India etc. As explained by Newman, et al. (2015) with the help of the findings of Turker (2009) analysis, the corporate social responsibility to its stakeholders can be categorized as primary stakeholder and secondary stakeholders. There are in total four groups of stakeholders in these two categories as primary group comprises of corporate social responsibility towards employees, corporate social responsibility towards customers and corporate social responsibility towards government, while the secondary groups of stakeholders are social and non-social stakeholders. Empirical studies have shown that corporate social responsibilities towards different stakeholders results differently on the outcomes of employee's behaviors (Abane, 2016; Newman, et al., 2015; Turker, 2009). As such, study of Newman, et al., (2015) concluded that organizational corporate social responsibilities practices towards secondary stakeholders was highly correlated to organizational citizenship behavior than corporate social responsibilities practices towards primary stakeholders. A comparative study of (Abane, 2016) analysis reached to the conclusion that employee perception of corporate social responsibilities with respect to government

and environment were strong compared to other stakeholders. Thus it supports the necessity of studying CSR as per its different dimensions which in this study is four dimensions.

Corporate Social Responsibility towards Employees

Corporate social responsibility towards employees refers to fair practices of organizations towards its employees. It may include setting market competitive salaries, fair treatment, respectable environment, special supports in situation of need (Malik & Nadeem, 2014). If employees working in an organization feels that their organization understands its responsibilities towards its employees then it will create a positive image of the organization both internally and external to organization (Abane, 2016). In this regards Bartels, Peters, de Jong, Pruyn and van der Molen (2010) also insisted that if the organizations are involved in CSR responsibilities employees do feel encouraged in a way that they are a part of these activities by sharing similar values and characteristics respectively.

Corporate Social Responsibility towards Customers

Corporate social responsibility towards customers is considered to be most significant in the group of three. Corporate social responsibility towards customers may include commitment fulfilling and keeping up to rights of the customers etc. (Newman, et al., 2015), as employees of a company are more located usually in one place the customers of a company are spread over around the whole country and even beyond that. So if an organization has satisfied customers who are aware of company's positive corporate social responsibilities, the customers will provide positive feedback about the organization to the people (Turker, 2009). This will help in creating and maintaining a positive image of the organization in the market and people will value the company and the employees who are working in the respective company. Thus this will again like above will enhance organizational citizenship behavior of the employees as suggested by the empirical studies of (Abane, 2016; Newman, et al., 2015; Turker, 2009).

Corporate Social Responsibility towards Government

Corporate social responsibility towards government refers to an organization's compliance of legal and regulatory bodies. An organization fulfilling the compliance to government's regulation is ultimately working for better and safer environment and betterment of employees as

government policies are meant for the same reasons and for the stability of the country. Multiple studies have evaluated the link of CSR towards government to employee outcomes (Turker, 2009; Newman, et al., 2015). Although studies establish that there is link between corporate social responsibility towards organizational citizenship behavior and employees performance but that was not comparatively significant than corporate social responsibilities to other stakeholders. However, Study of Abane (2016) found the link of corporate social responsibility towards government and society stronger in its study. In any case it can generally be realized that an organization working to become a compliant organization will have a positive image in employees, customers and in market. Thus it can be derived from social identity theory that this positive image will lead the employees towards organizational citizenship behavior.

Corporate Social Responsibility towards NGOs and Society

Corporate social responsibility towards social and non-social stakeholder is defined by Newman, et al. (2015) in their study as those corporate social responsibilities initiatives which are directed towards those entities which are not directly benefitted from the practice of organization such as employees, internal & external customers etc. This group may include non-governmental organization working for the betterment and stability of society and environment. These practices specially cost heavily to the organization so it also gives the message to the stakeholders that company is follows selflessly the aim of fulfilling the corporate social responsibilities even by sacrificing huge amount of profits (Newman, et al., 2015). Corporate social responsibilities towards social and non-social stakeholders are usually comes in knowledge of masses as those non - governmental organizations never fail to acknowledge the contributions of particular organizations publically. Hence the effect of corporate social responsibilities towards social and non-social stakeholders has the most effect on responsible image creation of company. Empirical studies have also confirmed this as in their study finds the corporate social responsibilities towards social and non-social stakeholders the strongest contributor in employees' organizational citizenship behavior and in their performance.

Conceptual Framework and Hypothesis Development

Based on above literature review we have developed the conceptual framework in which Organizational Corporate social responsibility (Independent Variable) has been measured by four dimensions including

CSR towards employees, customers, government and NGO. Whereas, Organizational citizenship behavior has been measured as dependent variable. Further Importance of CSR has been measured as moderator between four dimensions of OCSR and OCB.

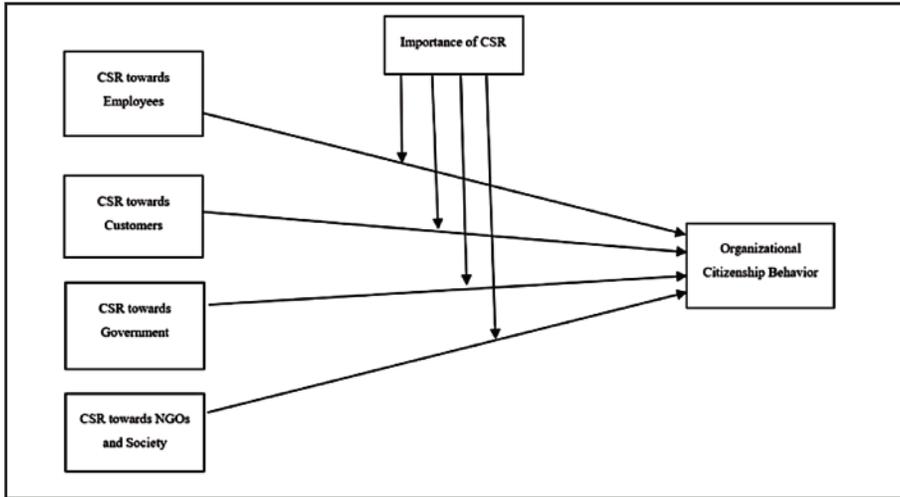


Figure 1: Conceptual Framework

Based on above literature we have developed the following hypotheses”

H₁: There is a significant impact of CSR towards employees on organizational citizenship behavior

H₂: There is a significant impact of CSR towards employees on organizational citizenship behavior

H₃: There is a significant impact of CSR towards Government on organizational citizenship behavior

H₄: There is a significant impact of CSR towards NGO and Society on organizational citizenship behavior

H_{5a}: Importance of CSR moderates the relationship between CSR towards employees and Organization citizenship behavior

H_{5b}: Importance of CSR moderates the relationship between CSR towards customers and Organization citizenship behavior

H_{5c}: Importance of CSR moderates the relationship between CSR towards Government and Organization citizenship behavior

H_{5d}: Importance of CSR moderates the relationship between CSR towards NGO & Society and Organization citizenship behavior

METHODOLOGY

In this research ontological stand is taken as there is single reality as this research seeks to study the single reality of relationship between Corporate Social Responsibility and Organizational Citizenship Behavior (opposite to interpretivist where reality can be multiple). The variables which are studied here have objective characteristics and tangible realities; they also exist separate or independent of the subject (opposite to interpretivism where reality is claimed to be socially constructed and researcher and research are one). As this research is quantitative in nature (Interpretivist is used for qualitative researches) and to fulfill the objective of this research which is to investigate the relationship of corporate social responsibility practices and organizational citizenship behavior, hypotheses are made and tested (scientific method) and the data is collected through self-administrated questionnaire. Further the data is statistically analyzed for the relationships and its validity will also be check statistically (in interpretivist the data is validated thru interviews). This research also aims to generalize it finding to other pharmaceutical companies (in qualitative researches one cannot easily generalize or compare the research). Thus this research best suits to positivist paradigm. This study is based on Social Identity Theory; hypotheses are developed on the basis of SIT that corporate social responsibility practices of a company leads employees to organizational citizenship behavior. So this study is using Deductive approach.

Sample and instrument

The size of the sample determines the statistical precision of the findings. The size of the sample is a function of change in the population parameters under study and the estimation of the quality that is needed by the researcher. Generally, larger samples result in more precise statistical findings (Abane, 2016). Three pharmaceutical companies of Karachi, the required sample size was calculated. Total no. of employees of all three companies: 3400 sample size calculated: 357. Convenience sampling technique is used for both selection of companies and employees. Structured questionnaire is used to collect primary data. Questionnaire has been adopted from the study of (Newman, et al., 2015; Abane, 2016). Questionnaire is also validated through pilot testing.

DATA ANALYSIS

SmartPLS3 (PLS-SEM) (Ringle, Wende, & Will, 2005) is used to analyze the questionnaire and hypothesis testing. PLS-SEM is most

suitable technique (Hair et al, 2014) for studying path model. Internal consistency reliability is tested by rational Cronbach’s alpha and then it will also be tested through composite reliability which will overcome the limitations of Cronbach’s alpha while distinguishing between variable indicators on the basis of outer loadings. Convergent validity is one of the way to ensure that all the variables and their items correlates with the other items of the same variable. There are mainly three ways to establish the convergent validity, one is by average variance extracted also knows as AVE, second is Outer Loadings and third is composite reliability. As mention in below table that in all of the three directions values appears in the acceptable range and came out significant for conducting further analysis. Later Regression analysis is used to test the relationship between employee perceptions of CSR practices towards all 4 major stakeholders and Organizational Citizenship Behavior.

Measurement Model

Convergent Validity and Item Reliability

Table 1 shows the outer loading statistics of all the items of this research and we can see that value of outer loadings are all in the acceptable range which is above. 0.60. Thus, it is established that convergent validity is present. Further, the table shows the composite reliability statistics of all the variables, and since all are having values in acceptable range i.e. 0.70, thus it can be assumed that all the items of all the variables have internal consistency and they are towards same idea. Finally, An AVE value of 0.50 or higher indicates that, on average, the construct explains more than half of the variance of its indicators. Conversely, an AVE of less than 0.50 indicates that, on average, more error remains in the items than the variance explained by the construct. The table shows the all the variables have AVE of higher than 0.5.

Table 1: Outer loadings, Alpha, CR and AVE

	Measure- ments	Outer loading values	Cronbach’s Alpha	Composite Reliability	Average Variance Extracted (AVE)
CSR towards Customer	CSR1_1	0.736	0.824	0.894	0.738
	CSR1_2	0.894			
	CSR1_3	0.800			
	CSR1_6	0.834			
CSR towards Employee	CSR2_1	0.848	0.835	0.889	0.669
	CSR2_2	0.839			
	CSR2_3	0.889			

CSR towards Government	CSR3_1	1.000	1.000	1.000	1.000
CSR towards NGOs and Society	CSR4_1	0.839	0.823	0.882	0.652
	CSR4_2	0.823			
	CSR4_3	0.815			
	CSR4_6	0.751			
Importance of CSR	ICSR2	0.778	0.767	0.850	0.587
	ICSR3	0.730			
	ICSR4	0.774			
	ICSR5	0.782			
Organizational Citizenship Behavior	OCB_1	0.756	0.857	0.897	0.637
	OCB_4	0.792			
	OCB_6	0.743			
	OCB_7	0.864			
	OCB_8	0.829			

Discriminant Validity

An indicator's outer loadings on a construct should be higher than all its cross loadings with other constructs. It is used to establish the discriminant validity which explains that the variable is only measuring what it is meant for measuring. Above table shows that all loadings to respective variable is higher than the other cross loading thus successfully establishing discriminant validity. One more conservative way to analyze the discriminant validity is the Fornell – Larcker criterion. The logic of this method is based on the idea that a construct shares more variance with its associated indicators than with any other construct. Table 3 shows that all constructs does have high value of variance with their own construct then other variables.

Table 2: Cross Loadings

Cross loadings	CSR towards Employee	CSR towards Customer	CSR towards Government	CSR towards NGOs and Society	Importance of CSR	Organizational Citizenship Behaviour
CSR1_1	0.736	0.347	0.716	0.554	0.246	0.492
CSR1_2	0.894	0.394	0.494	0.619	0.390	0.735
CSR1_3	0.800	0.493	0.569	0.698	0.284	0.571
CSR1_6	0.834	0.408	0.501	0.595	0.354	0.704
CSR2_1	0.414	0.848	0.432	0.523	0.266	0.482
CSR2_2	0.412	0.839	0.344	0.307	0.262	0.455
CSR2_3	0.455	0.889	0.565	0.481	0.318	0.613
CSR3_1	0.676	0.532	1.000	0.672	0.315	0.655
CSR4_1	0.638	0.413	0.581	0.839	0.344	0.741

CSR4_2	0.670	0.426	0.437	0.823	0.350	0.635
CSR4_3	0.567	0.449	0.718	0.815	0.353	0.566
CSR4_6	0.531	0.377	0.437	0.751	0.346	0.522
ICSR2	0.317	0.374	0.257	0.396	0.778	0.442
ICSR3	0.240	0.207	0.199	0.285	0.730	0.315
ICSR4	0.360	0.129	0.235	0.316	0.774	0.363
ICSR5	0.292	0.273	0.264	0.304	0.782	0.404
OCB_1	0.655	0.356	0.628	0.677	0.329	0.756
OCB_4	0.554	0.671	0.449	0.552	0.437	0.792
OCB_6	0.529	0.516	0.509	0.536	0.368	0.743
OCB_7	0.762	0.366	0.571	0.662	0.444	0.864
OCB_8	0.592	0.540	0.458	0.654	0.427	0.829

Table 3: Fornell-Larcker Criterion

	I	II	III	IV	V	VI
(I) CSR towards Customer	0.859					
(II) CSR towards Employee	0.499	0.818				
(III) CSR towards Government	0.532	0.676	1.000			
(IV) CSR towards NGOs and Society	0.514	0.749	0.672	0.808		
(V) Importance of CSR	0.331	0.397	0.315	0.429	0.766	
(VI) Organizational Citizenship Behaviour	0.610	0.778	0.655	0.774	0.504	0.798

Structural Model

Evaluation of R² Value

Table 4 shows that the R² is significant based on the standard recommendations by (Cohen, 1988) where he suggests that 0.02 -0.12 is weak, 0.13 -0.25 is moderate and 0.26 is considerable. The value of R square in above table is 0.762 which means that variance in Organizational Citizenship Behavior the independent variable is explained by 76.3% by the Dependent variables of perception of CSR.

Table 4: R² Value

	R Square	R Square Adjusted
Organizational Citizenship Behavior	0.762	0.752

Hypothesis Testing

Table 5 and Table 6 provide the results of hypotheses. We applied bootstrapping technique with 5000 samples to test the relation and later moderating variables were also tested to find the moderating role of importance of CSR. Detail discussions on result is provided in separate section below.

Table 5. Hypothesis Testing (Direct Effect)

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))
CSR towards Customer -> Organizational Citizenship Behaviour	0.202	0.053	3.828
CSR towards Employee -> Organizational Citizenship Behaviour	0.325	0.062	5.210
CSR towards Government -> Organizational Citizenship Behaviour	0.054	0.063	0.851
CSR towards NGOs and Society -> Organizational Citizenship Behaviour	0.331	0.055	6.036

Table 6: Hypothesis Testing (Moderating)

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))
Moderating Effect 1 -> Organizational Citizenship Behaviour	0.135	0.093	1.461
Moderating Effect 2 -> Organizational Citizenship Behaviour	0.036	0.081	0.446
Moderating Effect 3 -> Organizational Citizenship Behaviour	0.086	0.074	1.161
Moderating Effect 4 -> Organizational Citizenship Behaviour	-0.172	0.091	1.887

DISCUSSION

CSR or Corporate Social Responsibility has never been in discussion this much as now it has been discussed these days. On one hand organizations are becoming more and more aware of the significance of their (CSR) Corporate Social Responsibilities and on other hand Government bodies, NGOs and other stakeholders, due to the issues like pollution, employment, discrimination etc., are continuously working hard for making organizations to become more accountable about their social responsibilities towards all the concern stakeholders and contribute as much as they can for the society they are linked with. As pharmaceutical sector of Pakistan has always been in discussion for both positive and negative practices related to manufacturing, prices hikes, sales pressure etc. Being associated to such sector, employees of pharmaceutical industry must have some influence on their behaviors outcomes. This study is based on Social Identity Theory, hypotheses are developed on the basis of SIT that corporate social responsibility practices of a company leads employees to organizational citizenship behavior. So this study is using Deductive approach.

The above results of Smart PLS shows that T-Statistics value of hypothesis 1 i.e. employees' perception of CSR towards employee has significant correlation with organizational citizenship behavior having T value of 5.210, which urges and exhibits consistency to the extant literature that employee do feel proud and does impact their social identity by associating to such an organization which contributes to their immediate society well-being (De Roeck & Delobbe 2012; Bartels et al. 2010). Hypothesis 2 i.e. Employees' perception of CSR towards Customers leads to organizational citizenship behavior, although an excessive studies has been conducted in similar domain highlighting a strong relation between CSR activities (Riketta, 2005) and other discretionary behaviors of employees but less on the factors like OCB and performance factors (Turker, 2009; Hofman & Newman, 2014). The above analysis is evident that organizations CSR activities do impact its immediate customers and their loyalty exhibiting significant results with the T value of 3.828. This may indicate that from social perspective aspect that receiving positive word-of-mouth from customers regarding their organizational practices in relation to CSR activities employees do feel pride, superior and acknowledged on personal-level (Turker, 2009). Moreover especially in the context of pharma industry employee are in direct contact with the customers, therefore hearing positive views about their companies can result as a motivation source and wish for staying with their current organization for longer term.

Considering hypothesis 3 i.e. Employees' perception of CSR towards Government leads to organizational citizenship behavior has comparatively less significant T- value of 0.851 as compare to other stakeholder dimensions used in our study. The low t-values in Pakistani context may be due to the fact that general public their trust on regulatory bodies due to increase numbers of corruptions scandals involving politicians and high ranking government officials, therefore, according to the this study employees do not feel a sense of pride by participating in any of corporate social activities directed towards government (Gong & Wu, 2012). Hypothesis 4 i.e. Employees' perception of CSR towards NGO's and Society exhibits the most favorable behavior towards enhancing organizational citizenship behavior exhibiting T- value of 6.036, as insisted by Lu (2009). In such a context, a firm's CSR directed toward meeting legal and regulatory obligations is unlikely to engender higher levels of organizational identification and subsequently impact on employee behavior.

These results show that CSR plays a significant role in boosting employee loyalty and can also result as of vital importance in terms of gaining sustainable competitive advantage (Porter and Kramer, 2006; John, Qadeer, Shahzadi & Jia, 2019). Almost all dimensions of CSR except for CSR towards Government all are significantly correlated to Organizational Citizenship behavior and the strongest correlation is among CSR towards NGOs and Society with Organizational citizenship behavior. It can also be observed from above results that moderating variable of Perceived Importance of CSR has no significant moderating effect on any of the 4 dimensions of CSR studied in this research.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study successfully established its hypothesis that CSR towards different stakeholders of organization leads to organizational citizenship behavior of an employee. However as per previous studies it was unsuccessful in establishing the fact that perceived importance of CSR will play an enhancing role in the correlation of CSR and OCB but we found that this is not the case. There were few limitations to the study as this study only took three companies in research as there are more than 100 pharmaceutical companies present in the same city. So future researches should take more organizations into account.

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MANAGING CHANGE WITH AN INTERVENTION OF PSYCHOLOGICAL CONTRACT

Shoaib Hyder*, Sumaiya Syed**, and
Salman Bashir Memon***

ABSTRACT

Organizations assess their feasibility to manage change by weighing their response and outcome, whereby humans seem most important. This study engaged two hundred and ninety-two mid-level professionals with a working experience of either public or private organizations of Information and Communication Technologies in Pakistan. It is revealed that the association of psychological contract and its fulfillment towards change management and willingness to change is quite posturing a positive impact. The study has concluded that the psychological contract is a complete subject line of commitments and promises, whereby the response of employees during changing time depends on their personality, situation and structure of change process. Significantly, change rehearsal is obligatory to the organization. Moreover, the extent of fulfillment by both parties is a facilitating footstep towards bringing effective change in an organization, and at all, the intervention of psychological contract assists in directing the individual learning for change adaptation and organizational learning for change implementation.

Keywords: Change Management, Psychological Contract, Quantitative Study.

INTRODUCTION

Change in an organization is apparent (Cameron & Green, 2009). Organizations today assess their feasibility by weighing their response towards time-based changes (Rousseau & Tijoriwala, 1998) for its processes, human resources and physicals (Doornmalen, 2011). Humans are most important (Rose, 1969) among three as they are alive and have a responsible behaviour towards change management (CMT), while processes and physicals do not respond (Dunphy & Stace, 1993). Individuals need appropriate facilitation for endorsement of change in an

*hyder.zil89@gmail.com; **ssm.syed@yahoo.com; salman.memon@salu.edu.pk

organizational interface (Kramer, 2007). Organizations bring change to support performance (Smollan, 2017) and growth of itself and its employees (Ketzer, 2012). Bringing change would change the employee expectations and commitment towards the organization (Freese, Schalk, & Croon, 2007). The involvement of employee would link to what an employee expects to provide to the organization and get in return from it (Coyle-Shapiro & Conway, 2006; Doornmalen, 2011). This study is routed to the psychological contract (PC) of an individual. The reason to consider PC in an organization is to assess an array of obligations (Rousseau, Hansen, & Tomprou, 2018), so that an effective CMT may be rehearsed (Cummings, Bridgman, & Brown, 2015). It is a relatively significant today to improve the interpersonal behaviour of employees and its organization simultaneously to strengthen and confirm expectations and obligations duly formed by two towards each other (Guest & Conway, 2002). This would also assist in establishing organizational objectives through the definition of employee-centric approaches to enhance contract fulfillment (Liao, Wayne, & Rousseau, 2016). PC would also enrich relationship of two (Aselage & Eisenberger, 2003; Freese, Schalk, & Croon, 2007), and it would help achieve the success of bringing and managing change in an organization (Hyder, Syed, & Memon, 2019). PC expectations could be the source of establishing competitive move (Dunphy & Stace, 1993). The study is a worthy addition to the literature of Pakistan that tries to explore meaningful factors between PC and CMT. It also provides organizations and managers with empirical information of PC intervention to CMT for managing change decisions with following objective of research: to examine the extent of influence and intervention of PC, PCF and PCB to CMT, WTC and RTC.

Change Management

CMT is an approach to shift (Dunphy & Stace, 1993) employees, divisions or organization itself using predefined methods to redirect processes (Kanter, Stein, & Jick, 2003) and use of resources to restructure the organization for survival and growth (Smollan, 2017). It refers to planned modification (Galpin, 1996) of organizational behaviour towards each aspect or just one it deals with to improve functioning (Kramer, 2007). It is concerned with managing new organizational goals and policies (Luecke, 2003), and implementation, continuation and development through a CMT course (Zimmer, 2015) that depicts all steps involved in intended transformation with possible

restrictions (Smollan, 2017). CMT is a continuous process and its nature is quite practical (Armenakis & Bedeian, 1999) thus there is need to focus on CMT models of different researchers to understand the term more comprehensively.

Different change models have been presented but all direct to rehearse the practice of change as a plan or a course to be adopted in an organization (Schalk & Freese, 2002). Let us cite some of the major change models around six decades. It starts with the work of Lewin (1946), who put it into the context of unfreezing the abnormal behaviour and freezing it to normal by three steps. Kubler Rose (1969) expanded by five-stages model; arguing once a change is implemented an individual begins to react first in denial and shock moving to depression and frustration but once he is engaged in experiencing change he begins to decide for integration in change. Bullock and Batten's (1985) introduced a four-phase model; confirming that change is technical and needs to be technically addressed through definition and monitoring. Judson (1991) provided with a five-step model to motivate the employees to adopt change and reduce RTC.

Later, Kanter and colleagues (1992) identify change as a ten instructions-model to be executed; arguing that change is a multidimensional process and present almost everywhere, it cannot be avoided as per its stream of happening and execution. Dunphy & Stace (1993) proposes organizational transformation changes mission, core values, strategy and even way of interaction in an organization (Hyder, Syed, & Memon, 2019). Galpin (1996) evaluated change with cultural influences; evolving a new nine wedge (fixed) step model to align change with organizational culture. Kotter (1996) clarifies CMT as an eight-step transformational organization process in his book; applicable to organizations working in continuously changing environment. Armenakis & Bedeian (1999) build up a seven-step model almost close to Lewin's; enforcing change is continuous and is transmitted by organizational willingness.

Revolving millennium brings; Senior (2002) categorizes the change by its occurrence, how it arrives and by scale; prescribing the model is highly applicable to change under investigation. Luecke (2003) examined connections of Lewin and Kotter model; proposed a new seven-step model that entity must adopt a structured way to bring

change. Hiatt & Creasey (2003) provided with the ADKAR model that refers to creating awareness, enforcing desire, providing change knowledge, training ability and finally reinforcing change for sustainability. Zimmer (2015) confirms change is a process or a course and significantly involves eight-steps based on the commonality of different models cited above.

Each CMT model cited above confirms that it is the process that needs identifying (Bullock & Batten, 1985), planning (Senior & Swailes, 2010), communicating, implementing and reinforcing change continuously (Smollan, 2017) for effective CMT at the individual, divisional and organizational level (Zimmer, 2015). Further, CMT is about to impose new skills to whoever works in the organization. Confirming change is a step ahead towards organizational development and sustainability (Smollan, 2017). Organizational behaviour has authenticated that an individual, individual-organization interface, organization itself and its processes concerning time are significant context to CMT (Moorhead & Griffin, 1989). A successful change begins, when each of the above aspects is intervened in the change process for effectiveness (Rothwell & Sullivan, 2005). The literature revealed that CMT is highly mediated by willingness and resistance (Kramer, 2007). As employees, today are more informed towards what they do and for what they are paid. Their savvy state is key to enforce an effective CMT (Smollan, 2017).

Willingness to Change

A factor that refers to the degree of readiness of achieving organizational change (Armenakis & Bedeian, 1999). It is a behavioural intention, depicted by an individual that triggers him towards optimistic acceptance for changing dimensions (Smollan, 2017) that is either nature of work, the practice of a process and even position (Metselaar, 1997). Willingness to change (WTC) can be promoted by effective communication to employees, their participation in a change process, facilitating them to understand what the organization is going to do and finally negotiating them based on their factors (Liao, Wayne, & Rousseau, 2016) like attitude, age, designation, ability and commitment to work and organization (Kramer, 2007).

Resistance to Change

It is a factor that is opposite of WTC. It bisects change process and is

about depicting employee pessimistic thoughts that bringing change will bring conflict for either their personal life (Metselaar, 1997) or organizational position (Hiatt & Creasey, 2012). Moreover, psychological factors like work stress, uncertainty in job issues, expertise effect as per generational difference (Smissen, Schalk, & Freese, 2013; Hyder, Syed, & Memon, 2019) and new work aspects would completely change dimensions of their PC after bringing change (Smollan, 2017). However, this is not so; RTC is supported by social factors (Freese, Schalk, & Croon, 2007) such as team involvement, trust (Hyder, Syed, & Memon, 2019) and ambiguous informal meetings about change process must be avoided by managerial side (Luecke, 2003). It is no more than a misunderstanding of change context in employee mind that can be reinforced in optimism and reduced (Judson, 1991) by compensating the individual desire towards WTC.

LITERATURE REVIEW AND HYPOTHESIS

PC is an appropriate aspect of the working relationship (Rousseau, Hansen, & Tomprou, 2018) and human behaviour (Doornmalen, 2011). Notably, it emerged for the last two decades in organizations and is contributing to the high significance of commitment (Coyle-Shapiro & Conwey, 2006). Keeping in view the insights of this variable organizations today highly care and respect the contractual philosophy (Nery-Kjerfve & Wang, 2019) of what their employees think about work obligations (Maguire, 2003) assigned to them. This is what entities intend to consider employment PC when bringing a change. Theoretical work revealed that PC is in between an employee and employer (Kotter, 1973) held by the employee to show optimism to his or job in response to effective PC (Doornmalen, 2011). The optimism of individual triggers him or her towards added WTC and let him or her respond positively for CMT (Smollan, 2017; Rousseau, Hansen, & Tomprou, 2018). PC is a unique set of mutual expectations held by employees concerning their commitments and claims (Sparrow & Cooper, 2003; Hyder, Syed, & Memon, 2019); that is why the organization is needed to rehearse effectively CMT by endorsing employee's contribution (Guest, 1998), responsibility (Guest, 2004), exchange philosophy (Rousseau, 1989), promises & commitment (Schalk & Soeters, 2008), perceived organizational support (Coyle-Shapiro & Conwey, 2006), relationship (Kotter, 1973) and (Schein, 1965) and communication (Guest & Conway, 2002). If an employee is more informed about PC, he would behave

positively (Anderson & Schalk, 1998) and thus we can derive out the hypothesis as:

H1(a): PC is positively and significantly associated with CMT and WTC.

Different studies have put into context that PC is subjective (Hyder, Syed, & Memon, 2019) and holds more cognitive nature (Massingham, 2013; Bankins, 2015) as it refers to individual expectations, beliefs and perception (Sparrow & Cooper, The Psychological Contract, 2003). Perhaps it may have a pessimistic response towards change when an employee is less informed about PC and this is what pushes him or her to behave negatively (Griep & Vantilborgh, 2018). The hypothesis is thus drawn as:

H1(b): PC is negatively and significantly associated with RTC.

PC raises two aspects; first expectations are met called PC and second expectations are unmet called PCB (Robinson & Morrison, 2000). The PCF refers to PC execution (Moore, 2014); where an individual perceives that his or her promises have been met (Coyle-Shapiro & Conwey, 2006). The perception here is a positive difference (Guest, 2004) in actual versus expected outcomes. PCF is well-thought-out in terms of trust and commitment towards the organization to ensure enhanced performance (Aselage & Eisenberger, 2003), inspire employee trust about future completion of promises (Guest & Conway, 2002) by affiliation side and willingness to carry out new assignments (Griep & Vantilborgh, 2018). All it reflects and helps in the manipulation of employee attitude (Doornmalen, 2011) towards CMT and WTC. The hypothesis is thus drawn as:

H2(a): PCF is positively and significantly associated with CMT and WTC.

Moreover, it is generally observed that PCF minimizes negative responses like frustration, disappointment and irritation (Hyder, Syed, & Memon, 2019). It has the strength to achieve effective employee decisions and choices for job roles (Turnley & Feldman, 1998). It is seen as an aspect of job support that transits a PC for years and years (Guest, 2004) and that will ultimately contribute in depicting a negative response to the refusal of change as per two-way contractual philosophy. Thus, hypothesis H2(b) can be suggested:

H2(b): PCF is negatively and significantly associated with RTC.

Psychological contract breach (PCB) refers to PC breaking or

violation (Robinson & Morrison, 2000; Sutton & Griffin, 2004); where an individual perceives that his or her promises have not been met (Griep & Vantilborgh, 2018). The perception here is a negative difference in actual versus expected outcomes (Arain, Hameed, & Farooq, 2012). PCB is well-thought-out in terms of discrepancies and misunderstandings found towards the organization that depicts repeated employee shock (Griep & Vantilborgh, 2018), denial of work, frustration and irritation (Rose, 1969) towards present or may be future assignments. All it reflects is to say NO! to transformation by employee attitude towards the change process. Thus, breaching of contractual philosophy from one side will lead to breaching by others (Turnley & Feldman, 2000) and a hypothesis can be drawn for depressing relation in between two.

H3(a): PCB is negatively and significantly associated with CMT and WTC.

PCB, if not considered maximizes negative responses (Griep & Vantilborgh, 2018) that will lead to disturbance or violation of employment contract held between two parties (Aselage & Eisenberger, 2003). The perceptions for PCB can be minimized by focusing on PCF central points, negotiations (Liao, Wayne, & Rousseau, 2016) and discussions with employees (Robinson & Morrison, 2000), so that to minimize the chances of RTC in an organization but on the other side breaching of contract at all levels leads to constructive support for RTC (Griep & Vantilborgh, 2018) and a hypothesis can be drawn as:

H3(b): PCB is positively and significantly associated with RTC.

The intervention of PC is a response of an employee for change commitment (Maguire, 2003). It holds a good behavioural contribution (Lewin, 1947) of an employee and employer towards CMT as it considers both parties for work arrangements, interaction (Guest & Conway, 2002), shared responsibility, mutual inducements (Rousseau, Hansen, & Tomprou, 2018) and even inspiration of trust (Rousseau, 1989) that provides individual commitment (Luecke, 2003) in bringing change in an organization (**see Exhibit 1**). The intervention also assists in erasing distance and forming loyal relations between two (Liao, Wayne, & Rousseau, 2016) with respect and understanding (Rousseau, 1989). It allows leaders or facilitators of change to balance and direct change in an organization (Doornmalen, 2011; Smollan, 2017).

EXHIBIT 1: Comparison between CM and PC

Change Management		Psychological Contract	
Personal Factors	Organizational Culture	Work Obligations	Individual Expectations
Communication	Motivation & Reinforcement	Work Interface	Formal Relationships
Work Commitment	Employee Engagement	Work Life	Individual Commitment
Time Difference	Technical Expertise	Family Life	Individual Belief & Trust
Mission & Goals	Willingness Response	Job Transition	Individual Awareness
Individual Misunderstanding	Facilitation to Change	Job Resources	Organizational Commitment
Society Pressures	Knowledge & Ability	Individual Learning	Fairness & Justice
Instructions & Investigation	Assumptions & Uncertainties	Compensation	Organizational Support
Planning & Development	Implementation & Continuation	Rewards	Conflict Management
Informal Meetings	Sequence & Rehearsal	Decision Roles	Policies & Procedure

The participation helps in promoting WTC and minimizing RTC by improving (Kotter, 1996) perceptual state of PCF and PCB within the organizational interface. PCF attributes such as flexible policy, time to be given to an employee for change clarification, understanding, good communication (Lewin, 1947), career (Nery-Kjerfve & Wang, 2019), compensation (Härenstam, Rydbeck, Johansson, Karlqvist, & Wiklund, 2002), work-family assistance and PCB attributes (Robinson & Morrison, 2000) such as handling of employee emotional response & behaviour (Griep & Vantilborgh, 2018), shared obligations (Hyder, Syed, & Memon, 2019), informal communications, assumptions and uncertainties (Cummings, Bridgman, & Brown, 2015), practices, workload distribution (Härenstam, Rydbeck, Johansson, Karlqvist, & Wiklund, 2002), interference, organizational attachment to an individual, job resources (Freese, Schalk, & Croon, 2007), justice and rewards (Aselage & Eisenberger, 2003) would be highly meaningful to the involvement of two (Hyder, Syed, & Memon, 2019).

Managing expectations is significant for CMT to avoid conflicts (Aselage & Eisenberger, 2003). Else, the organization must compensate employee expectations to bring effective change at the workplace or affiliation (Arain, Hameed, & Farooq, 2012). An individual is highly adaptable to behaviours that are rewarded (PCF aspect) and punished (PCB aspect) to protect his or her self-esteem (Griep & Vantilborgh, 2018) before others, subject to a dialogue of bringing change (Doornmalen, 2011) and that is why they respond to changing conditions through CMT

(Härenstam, Rydbeck, Johansson, Karlqvist, & Wiklund, 2002) that might affect their working and personal life (Moorhead & Griffin, 1989).

The intervention is highly effective in directing individual learning for change adaptation and organizational learning for change implementation (Ketzer, 2012); whereby employees are actual agents of bringing the change (Bankins, 2015). Time (Robinson & Morrison, 2000) and speed of change (Senior & Swailes, 2010) are significant mediators of CMT. Lewin (1947) also primarily considered individual psychological aspects throughout the change but he later he shifted to individual behaviour to observe the response towards change (Doornmalen, 2011). Change is unpredictable but a real-time intervention of PC would bring individual WTC and highly contribute to the sustainability of change (Kramer, 2007).

RESEARCH METHODS

The study involves survey method, whereby around 292 questionnaires were distributed to the circle of nationwide employees, managers and coordinators, working in different divisions of public and private organizations (Härenstam, Rydbeck, Johansson, Karlqvist, & Wiklund, 2002) related to information and communication technology (ICT) industry to assemble data in Pakistan. The reason is to involve this industry is because of rapidly changing situations in ICT, adapting to new technology day by day and managing fast change in underdeveloped nationwide employment practice as well. The study assumes in this industry there is highest of influence of PC on CMT.

Measures and Measurement Strength

The instrument is divided into six sections each having worldwide recognized measuring scale and items involvement as per variables context in global research. Variables and related items were in following heads as per our research context. Forty-one items are intervened as total. Change-related variables are measured with scale endorsed by (Fedor, Caldwell, & Herold, 2006); CMT: four items coded with context-help of (Holt, Armenakis, Feild, & Harris, 2007); WTC: Eight items coded with context-help of personal and organization valence from (Holt, Armenakis, Feild, & Harris, 2007); RTC: Seven items coded with context-help of (Hiatt & Creasey, 2012). PC related variables are measured with scale endorsed by (Freese & Schalk, 2008; Rousseau, 2000; Robinson & Morrison, 2000) respectively. PC: Eight items coded with context-help of Kotter, (1973) and (Sparrow & Cooper, 2003); PCF: Eight items coded with context-help of Rousseau. (2000); PCB: Six items coded with context-help of (Robinson & Morrison, 2000).

Reliability and Validity

Internal consistency for the construct was checked with the computation of alphas (Cronbach, 1951). **Exhibit 2** depicts the reliability of the instrument for model evaluation; almost all of the Cronbach alpha values are above 0.70 (Nunnally, 1978). Yet, values that tend to remain at the lowest of 0.35 are found to be acceptable for measurement (Roberts & Wortzel, 1979) to uphold the professional meaning of constructs. AMOS based confirmatory factor analysis (CFA) were used to examine the validity of construct by assessing the percentage of total explained variance per dimension (Jöreskog & Sörbom, 1986; Jackson, Gillaspay, Jr, & Purc-Stephenson, 2009). The alpha values reported are higher than 0.5 that indicates the acceptance of instrument survey validity of construct (Hair, Tatham, Anderson, & Black, 1998). However, exploratory factor analysis was not preferred over confirmatory factor analysis so that to stay dependent on content validity rather than possible structures and their priorities; that ultimately ensures the adequacy of concept and its items-set (Sekaran & Bougie, 2013).

EXHIBIT 2: Construct's Internal Consistency

Construct	Alpha (Cronbach)	Variance Explained (%)
Psychological Contract	0.821	0.041
Psychological Contract Fulfilment	0.881	0.250
Psychological Contract Breach	0.678	0.280
Change Management	0.583	0.032
Willingness to Change	0.872	0.220
Resistance to Change	0.821	0.019

DATA ANALYSIS

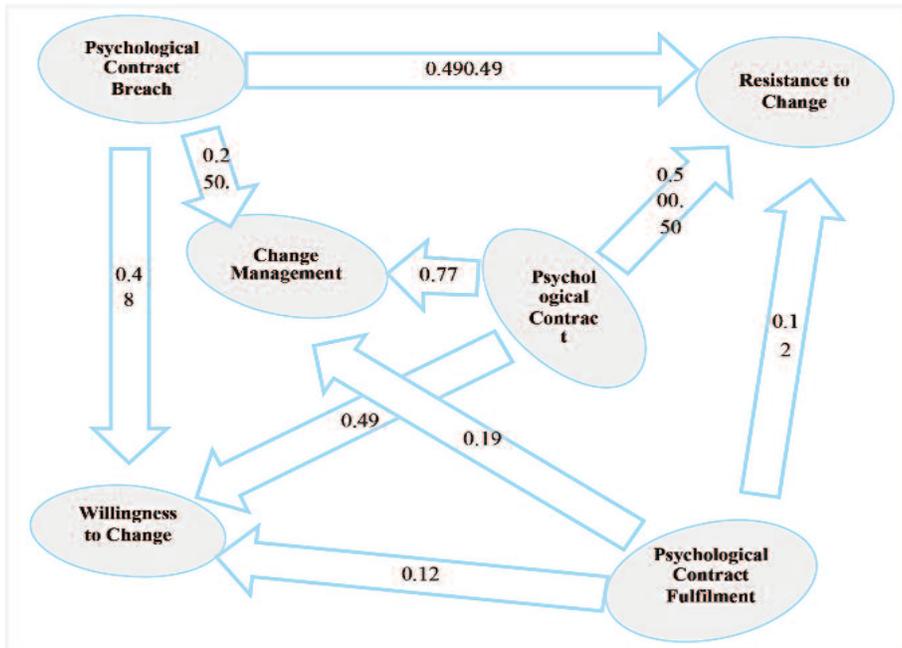
The relationships for unlike perceptions (Bankins, 2015) and organizational intentions involve the assumption of structural equation models (SEM) (Turnley & Feldman, 2000) or simply latent variable models (Hair, Tatham, Anderson, & Black, 1998) is used with the help of maximum likelihood estimation (MLE) and AMOS (Jöreskog & Sörbom, 1986). SEM is almost effective at testing the models that are path-analytic with the intervention of several variables (Freese, Schalk, & Croon, 2007) and contain underlying constructs that use multiple items to be measured (Luna-Arocas & Camps, 2007). MLE is used because departure tests from skewness, normality and kurtosis for all the variables involved were inside satisfactory statistical limits (Klein & Moosbrugger, 2000). Additionally, the 292 sample size in this study pertains to the range of 100 to 200 to use MLE procedures.

The overall model fitness was assessed with the reference to (Bollen,

1989) for examining the multiple indices with a possibility of model fit to remain adequate on the single index but may be inadequate on numerous others. Chi-square and the normed chi-square tests, the GFI (goodness of fit index) and examination of root mean squared error of approximation (RMSEA) were used (Jöreskog & Sörbom, 1986; Turnley & Feldman, 2000).

Insignificant Chi-square (i.e. $p > 0.05$) points to an adequate presentation of the all-inclusive set of relationships in the proposed model. But, for significant chi-square and high numerical degree of freedom, the worth of normed chi-square (either chi-square value or degree of freedom) may be used. The most elastic acceptance value of normed chi-square must not be greater than 5, but carefully it may rise above 3 (Pedhazur & Schmelkin, 1991). The GFI index should not drop down below 0.70 in a situation of complex models (Judge & Hulin, 1993). The RMSEA appraise the model fitness with the reference to either correlation matrix or population covariance and RMSEA value below 0.08 depicts a good approximation. Moreover, the CFI (comparative fit index) (Bentler, 1990) and NFI (normed fit index) (Bentler & Bonett, 1980) were also used, to investigate the study structure that best suits empirical data. The above-mentioned indexes should not drop below 0.90, but in a situation of complex models, 0.80 is the lowest-acceptable level for CFI and NFI (Hart, 1994).

EXHIBIT 3: Path Model



The path diagram for proposed CMT and PC intervention model is depicted in **Exhibit 3**. The circles symbolize the connected perceived variables. The arrows indicate perceived variables that establish a connection in latent and corresponding variables. The numeric that is allocated to each arrow display important standardized estimated coefficients. By referring to the intervention model, path analysis and multivariate analysis were involved to associate theorized relationships (i.e. H1, H2...H3) between offered variables. Besides, the overall fitness of the model was also examined. The study results confirm the structural relationship between CMT and PC factors with the significance of p-value < 0.05 . The chi-square (χ^2) displays model goodness.

EXHIBIT 4: Hypothesis Testing Results

Hypothesis	Path	Association	* γ	**t-value	***p-value	Result
H1(a)	CMT \leftarrow PC	+	0.77	6.54	0.000	Supported
	WTC \leftarrow PC	+	0.49	3.32	0.002	Supported
H1(b)	RTC \leftarrow PC	-	0.50	1.17	0.378	Not Supported
H2(a)	CMT \leftarrow PCF	+	0.19	10.83	0.005	Supported
	WTC \leftarrow PCF	+	0.12	2.43	0.033	Supported
H2(b)	RTC \leftarrow PCF	-	0.12	0.98	0.481	Not Supported
H3(a)	CMT \leftarrow PCB	-	0.25	1.27	0.732	Not Supported
	WTC \leftarrow PCB	-	0.48	0.74	0.559	Not Supported
H3(b)	RTC \leftarrow PCB	+	0.49	6.64	0.004	Supported

* Gamma (\square), ** $t \geq 1.96$, *** $p \leq 0.05$

The impact of study factors as shown in **Exhibit 4** with their significance and acceptance. H1(a), H2(a) and H3(b) are supported and H1(b), H2(b) and H3(a) are not supported. The results, however, involves that the assumed relationships between PC, PCF and PCB have a significant impact on CMT and its inclined variables. The goodness-of-fit indexes confirms the validity measure of operational model with Chi-Square = 1.907, RMSEA = 0.015, NFI = 0.878, CFI = 0.908 and GFI = 0.958; Even though flexible RMSEA and GFI levels were attained. Before concluding to results, it is to be noted that all possible paths to link demographics with CMT and PC, the results are partially significant. Further, concerning above results, following considerations are drawn keeping in view the base status of γ and extended consideration towards t- value and p-value for hypotheses: The association of PC is high towards CMT ($\gamma = 0.77$) and lowest towards WTC ($\gamma = 0.49$) but positive and significant supporting H1(a) and lowest

towards RTC ($\gamma = 0.50$) and negative rejecting H1(b). The association of PCF is lowest towards CMT ($\gamma = 0.19$) and WTC ($\gamma = 0.12$) but positive and significant supporting H2(a) and lowest towards RTC ($\gamma = 0.12$) and negative rejecting H2(b). The association of PCB is lowest towards CMT ($\gamma = 0.25$) and moderate towards WTC ($\gamma = 0.48$), negative and not significant rejecting H3(a) and moderate towards RTC ($\gamma = 0.49$) and positive supporting H3(b).

DISCUSSION

The study completely revolved around the following question: *To what extent does content of employee psychological contract influence the content of change management?* The overall influence of the content of PC to CMT is significant (Freese & Schalk, 2008; 1997; Pate, Martin, & Staines, 2000; Doornmalen, 2011; Turnley & Feldman, 1998). But the mediating relationship for fulfillment or breach of the contract is partially supporting (Guest, 2004; Pate, Martin, & Staines, 2000; Hall & Moss, 1998; Schalk & Freese, 2002) to study propositions. The results in Exhibit 4 reveals that the hypotheses are partly confirmed. H1(a) and H1(b) provides that the association of PC towards the content of CMT and WTC is positive and significant (Schalk & Freese, 2002) but towards RTC is negative and not significant (Pate, Martin, & Staines, 2000). This implies by the confirmation of this study that the PC has higher grassroots ($\gamma = 0.77$) embedded in CMT content (Rousseau & Tijoriwala, 1998), describing that the employee PC and his commitment (Coyle-Shapiro & Conwey, 2006) towards the organization and work obligations (Rousseau, Hansen, & Tomprou, 2018) can have better outcomes for CMT (Massingham, 2013) and WTC ($\gamma = 0.49$), depending on the up-to-what extent the employer's obligations towards employees are fulfilled (Herriot, Manning, & Kidd, 1997). Moreover, the same type of employees has no resistant force ($\gamma = 0.50$) towards bringing the change in an organization or work practice (Doornmalen, 2011).

H2(a) and H2(b) provides that the association of PCF towards content of CMT and WTC is positive and significant but towards RTC is negative (Freese, Schalk, & Croon, 2007) and not significant (Härenstam, Rydbeck, Johansson, Karlqvist, & Wiklund, 2002). This implies that the fulfilment of the contract by employer side consistently leads to the optimism of the employee (Kotter, 1973) and far longer towards the optimism for bringing radical and meaningful changes (Nery-Kjerfve & Wang, 2019) that may ensure and strengthen the formal relationship in

between the organization and its performance(Doornmalen, 2011). The fulfilment of the contract by parties have fruitful results at all for both and nevertheless inverse in the case of RTC (Bankins, 2015). In Pakistan, the statistics are not so good ($\gamma=0.19, 0.12$ & 0.12) but it is confirmed in the results of this study as per the different studies have revealed and endorsed.

Additionally, the organization must rehearse the effective CMT (Smollan, 2017) by endorsing employee's contribution (Guest, 1998), responsibility (Guest, 2004), exchange philosophy (Rousseau, 1989), promises and commitment (Schalk & Soeters, 2008), perceived organizational support (Coyle-Shapiro & Conway, 2006), relationship (Kotter, 1973; Schein, 1965) and finally communication (Guest & Conway, 2002) in organization. The fulfilment of the contract may have a confident and favourable response by the employee side (Hyder, Syed, & Memon, 2019; Anderson & Schalk, 1998) towards the change process when an employee is more informed about the contractual philosophy and change precedents and their outcomes for the organization and employee him or herself(Härenstam, Rydbeck, Johansson, Karlqvist, & Wiklund, 2002).

H3(a) and H3(b) provides that the association of PCB towards the content of CMT and WTC is negative (Doornmalen, 2011)and not significant but towards RTC is positive and significant (Turnley & Feldman, 1998). This implies that the breaching of the contract by employer side surely leads to negativism of the employee(Kotter, 1973) and far longer towards the negativism for bringing radical and meaningful changes to organization or work and it may severely harm the organization and its performance(Turnley & Feldman, 2000). The breaching of the contract by parties has worsening results at all for both (Arain, Hameed, & Farooq, 2012). In Pakistan, the statistics confirm the same. Rationally, the same leads to bringing increased numeric ($\gamma = 0.25, 0.48$ & 0.49) for RTC in an organization.

When a contract is violated and the employee is betrayed; he or she feels aggressive and frustrated towards the organization for how he is treated (Turnley & Feldman, 1998; 2000). The employee perceives that the organization has violated the deal in terms of commitments, job security (Herriot, Manning, & Kidd, 1997) and individual development (Pate, Martin, & Staines, 2000). At large, the breaching of the contract has

a pessimistic and stressful response by the employee side towards the organization and the change process (Sutton & Griffin, 2004; Hyder, Syed, & Memon, 2019).

Employees are subject to reduce their responsibilities when an organization increases change (Freese, Schalk, & Croon, 2007) but we find something similar to outcomes of Rousseau (1995) that the response of an employee during changing time depends on his or her personality, situation and structure of change process (Schalk & Freese, 2002). Though the change creates uncertainty (Doornmalen, 2011) but employees for whom the content of the contract is fulfilled will behave positively towards change (Rousseau D. M., 1995). It is further explained that every single employee behaves and responds differently when the content of a contract is violated or breached (Smissen, Schalk, & Freese, 2013; Banks, 2015). It also prevails in decreasing the role of the employee in the form of feeling changed in fulfilment of their formal obligations towards the organization (Freese & Schalk, 2008).

CONCLUSION

PC is a subject line of commitments and promises (Sutton & Griffin, 2004; Hyder, Syed, & Memon, 2019) their fulfillment and extent of fulfillment by both of the parties is a facilitating footstep towards bringing effective change in an organization (Anderson & Schalk, 1998). Further, the factors such as work responsibility, workplace environment (Schalk & Freese, 2002) and support (Moorhead & Griffin, 1989), identification of employee capabilities, spending in employee skill development (Turnley & Feldman, 1998), nature of work, practice of a process, even position (Metselaar, 1997) and a good-fit measuring reward-system are the key gadgets to promote WTC among employees to support CMT (Freese, Schalk, & Croon, 2007; Rothwell & Sullivan, 2005; Massingham, 2013).

PC is related to CMT in different forms; primarily it is quite dynamic in nature (Rousseau & Tijoriwala, 1998) that completely relies on requirement of parties (Rousseau, Hansen, & Tomprou, 2018). It is altered in the mind of an employee by change adaptation practice as per the line of employer's obligations fulfilment (Herriot, Manning, & Kidd, 1997). Employees tend to form unspoken that are silent expectations about change process (Coyle-Shapiro & Conwey, 2006). The need is to be cautious for reverse and adverse effects in managing PC in the perseverance of CMT (Smissen, Schalk, & Freese, 2013). The enforcement

and fulfilment of PC by organization proves to be the respect-giving factor to employees (Pate, Martin, & Staines, 2000; Doornmalen, 2011) and in return, employees tend to bond the organization as a better workplace (Anderson & Schalk, 1998) and perceive that the organization completely interacts them for PC changings (Smissen, Schalk, & Freese, 2013). This perceived interaction leads to shared work responsibility among employees at the workplace (Herriot, Manning, & Kidd, 1997). Employees in this kind of favourable working environment compromise to changing situations (Bankins, 2015) and this is exactly where the point intersects and balances the line of expectations and inducements for employees in their work contribution (Turnley & Feldman, 1998; Hyder, Syed, & Memon, 2019). This is how an organization can better manage and rehearse change through inspiring employee trust in a justified and fair working environment (Pate, Martin, & Staines, 2000).

It can be concluded that the organization must identify, plan, implement and reinforce change and have enough information for CMT for effective outcomes (Massingham, 2013; Schalk & Freese, 2002). Employees perceive that change improves organizational and job efficiency(Freese, Schalk, & Croon, 2007). Employees are ready to behave positively upon different situations such as, when they trust their organization (Anderson & Schalk, 1998) they perceive change is completely communicated to them and is an opportunity for them, they are given the training for change adaptation and participation in the change process (Hall & Moss, 1998), change makes critical work process simple and easy for them(Massingham, 2013) and finally it proves itself a gadget of differentiating future and present from past (Rousseau, 1995). It can be simply stated that employees tend to change when they have fully received what they have expected in the contractual deal (Smissen, Schalk, & Freese, 2013). If all these situations hold untrue, then the employees resist changing (Massingham, 2013). They feel stressful and uncertain in their contractual deal (Smissen, Schalk, & Freese, 2013). They perceive that the change is troublemaking to organization and workplace(Massingham, 2013) and it will surely be a conflicting state for the employees and organization (Metselaar, 1997; Smollan, 2017).

Practical Implications for Management

Certainly, the perpetual change in an organization (Cameron & Green, 2009) depends on how the employees are going to react and rehearse it (Armenakis & Bedeian, 1999). As the literature exposed bringing change

would change the employee expectations and commitments towards the organization (Herriot, Manning, & Kidd, 1997); therefore, proper individual involvement and facilitation in CMT (Pate, Martin, & Staines, 2000) either spoken or unspoken is required to make it successful in an organization (Kramer, 2007). This is how the PC of an individual assist in improving interpersonal behaviour of an organization and its employees in promoting willingness and demoting RTC (Kramer, 2007). Besides this, the fulfilment of expectations and obligations in a contract (Freese, Schalk, & Croon, 2007) could be a sure source of establishing a competitive move (Smissen, Schalk, & Freese, 2013) through individual involvement (Dunphy & Stace, 1993).

The ADKAR model of (Hiatt & Creasey, 2012) to bring organizational change that has core PC dimensions is quite helpful in understanding the meaningful relationship for the intervention of PC towards CMT (Griep & Vantilborgh, 2018; Smissen, Schalk, & Freese, 2013). Improving the state of employee level PC would surely bring positive outcomes (Turnley & Feldman, 1998) and improve the degree of readiness of achieving the organization change (Armenakis & Bedeian, 1999). And this is possible by negotiating with the employees for their factors (Smissen, Schalk, & Freese, 2013) like age, attitude, designation, ability, commitment (Pate, Martin, & Staines, 2000) to work and organization (Kramer, 2007), giving them less work stress, uncertainty in job issues and no threat to their social wellbeing or expertise (Schalk & Freese, 2002; Hyder, Syed, & Memon, 2019).

The PC holds a good behavioural contribution (Lewin, 1947) of an employee and employer towards CMT in different aspects (Rousseau & Tijoriwala, 1998). It can lower the power distance between two in managing the change (Rousseau, 1989). Whereas; PCF and PCB hold a good and worse moral contribution in minds of the employee (Rousseau, 1995) in an organization respectively for their consideration in CMT (Smissen, Schalk, & Freese, 2013; Bankins, 2015). PC is a source to reduce conflicts (Aselage & Eisenberger, Perceived organizational support and psychological contracts: a theoretical integration, 2003). Its involvement is highly meaningful (Rousseau, 1995) in directing the individual learning for change adaptation (Hall & Moss, 1998) and organizational learning for change implementation (Ketzer, 2012; Schalk & Freese, 2002).

The study has used a general set of PC, and its aspects related to CMT and its dimensions. A more comprehensive list of the contents for PC concerning CMT can be explored through qualitative study (Rousseau & Tijoriwala, 1998). The study has focused on individual employees in a specific industry of Pakistan that may prevail in cultural and socio-economic differences in environment for researchers that evidences future examination in this area.

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BUSINESS INTELLIGENCE AND FIRM PERFORMANCE: ASSESSING VALUE AND FUTURE DIRECTIONS IN PAKISTANI FIRMS

Sumayya Arshad* and Dr. Danish Ahmed Siddiqui**

ABSTRACT

The purpose of study is to examine how Business Intelligence (BI) enhances the firm's performance in Pakistani firms. Pakistan is a growing country and BI is supposed to be in its initial stages in Pakistan while the data about BI implementation and use in Pakistani firms are also not many available, especially in statistical patterns. Model and questionnaire were adopted from Peters et al. (2016). BI system quality is based on BI infrastructure, functionality and self-service, that aids in getting a more serious competitive advantage and increasing firm performance by enhancing performance measurement capabilities. Data is collected from 300 employees of varied firms in Karachi, where business intelligence is being implemented. Outcomes were analyzed through SEM-PLS. Results suggested that BI system quality enhances the performance measurement capabilities, that raises the competitive advantage and optimizing the firm carrying out.

Keywords: *BI Quality, Performance Measurement, Competitive Advantage, Firms Performance.*

INTRODUCTION

Background of the Study

It has now-adays become the need for every organization to enforce Business Intelligence tools in their firms globally. At present, only those firms can live and enhance or keep up their offices which makes more use of technology in the right way. In Pakistan now the contest is also getting on using BI tools and houses are shifting towards it.

*Research Scholar, Karachi University Business School, University of Karachi, Pakistan

**Associate Professor, Karachi University Business School, University of Karachi, Pakistan & Former Chairman.

BI is the processed pattern of data analytics that is used to arrive at a decision for any concern. Essentially, it is towards the decision making of executive staff, higher management executives in any society. But in Pakistan, currently, we don't have BI implemented in many of the organizations because it is evidently a new venture for many Pakistani firms, but still, companies are implementing it and employing the tools like Power BI, SAP, click sense, and they are doing wonders by implementing BI in their respective clientele.

The process to implement business intelligence for any system is broad. All forms of data are actually residing on multiple information sources for example Share point, SAP, Oracle, SQL Server, and so on so, very first step all the data is actually integrated by shipping it into a centralized hub of data which is known as a data warehouse. After creating this data warehouse where all the sources will integrate and actually shipping this information, dashboards or reports are constructed for the executive management on the groundwork of the whole data of the system. Thus, these dashboards are actually the live reporting of the data which is actually representing an obvious procedure. For example, Toyota Motors was facing the issue that when their supply chain or their line of production get disturbed, there was no visibility where the problem is actually residing so, they created a dashboard on which the executive management can see that how the production line is going on and in case of any problem at any point, for instance, if the problem is in supply chain or the warehouse or bar code or assembly line the dashboard can reflect the immediate condition or exact condition of that point of time or assembly line so it figures out that where is the root cause and they actually fix that problem at right time so, it fixes the production quality and improve the production quality through business intelligence plus. In pharmaceuticals they are directly working on predictive analysis and perspective analysis to forecast their upcoming quarterly sales, next year sale, this year's closing sale and not only the sales and financial data, but they are also doing the whole warehousing and demand-supply, the supply chain concept using BI so they are the main ventures in which Pakistani companies are mainly working using the business word.

Globally organizations are using BI systems in firms of various sizes, as it help in enhancing functioning of organizations. Investment in BI

system implementation is increasing as the time is passing. Information attained from BI system is more relevant and timely to deploy in strategies and operations. It's one of the challenge in implementation phase is technical but it provides much business value.

It is easy for BI workers to work in global organizations. Moreover, most of the organizations that are working on this system do not share much information for academic purposes and are reluctant because they have a fear of information leak to the competitors.

Problem Statement

Organizations operating internationally do not conceive in the neighborhood of their hands, as their workers perform their businesses beyond the edges. Thus, innovative systems are today getting interest in the accumulation of information (BRAC, 2009).

As compared to other countries not much research is conducted in Pakistan on the topic of BI, Khan et al. (2009).

Although, statistical data about BI is not a great deal available in Pakistan and not about every sector of Pakistan. Because BI implementation is now has become important for every business, but its usage quality, implications, issues, the cost is not much available statistically.

Prior to the promotion of information technology (IT), it was nearly impossible to access the required information, hence businesses had to mostly rely on instincts. Investment in IT was focused on stand-alone information Systems (IS) resulting in "islands of information" since they could not be integrated with other IS. Mergers and acquisitions complicated the problem because the different companies were using different enterprise applications in carrying out the same function. It is evident firms in producing countries face constraints in areas such as eruction, expertise, and infrastructure (Melville et al., 2004).

The companies that implemented BI in Pakistan also don't possess the research data to anticipate the future of their BI systems to adopt the measures proactively and accordingly.

The focal point depend on worker capacity to take over arrangements.

Gap Analysis

Uncertainty exists on the link between IT contribution and firm's performance among researchers, hence the knowledge in this area remains undeveloped and unsystematic (Melville et al., 2004; Ida et al., 2015; Vuksik & Popovic, 2013).

Previous researches shoes the factors that helps in successful completion of BI and it's impact on performance of related departments such as supply chain. Some studies focus on leadership and culture necessary to implement BI while others focus on organizational capabilities. Multiple publications explains BI benefits but still much knowledge and information is needed to fill the gap.

Jourdan et al., (2008), describes the deficiencies of previous research in utilization of organization resources for BI adoption. Moreover, BI capabilities in relation to technical and operational aspects are also not describes in much research in elaborate manner. And above all, there is a lack of scientific inquiry about the BI industry in Pakistan due to the unavailability of BI statistics and low expertise. A lot of the research conducted globally in the field of BI does not focus on sensitivity around the cultural component of BI user types as regards the uniqueness of opinion in a particular state or area. Hence, the consideration of state-specific variance in study or opinion results on BI-related subjects holds weight. So, to cover that gap, we aim to explore BI capabilities in Pakistani firms.

Research Objectives

How BI quality enhances performance measurement practices, competitive advantage and strong performance in a growing nation like Pakistan is surveyed. It is found that BI quality is dependent on BIII, BIF, and BISS. Alavi and Leidner's (2001) suggested three dimensions of data, information, and knowledge, to relate BI quality. Theoretical model is examined through a survey in which data is collected via questionnaire from 300 employees of different firms, where commercial enterprise intelligence is being implemented in Karachi. ted in Karachi. Results are analyzed through SEM-PLS, which showed the positive association of BI system quality with others.

Research Question

1. How does BIII influence BIF?

2. How does BIF influence the BISS?
3. What is the impact of BI quality on PMC?
4. How does the BI systems and PMC impact competitive advantage?
5. What is the relationship among Business intelligence and performance of firms?

Significance

This research will help us in exploring the role of BI in Pakistan and the key drivers as well Khan, Amin, & Lambrou (2009). Our research will add a piece of information on this topic and attaining more competitive advantage, and overall performance. This study is going to help in making strategies to implement BI in Pakistani organizations and also in the technical and operational decision making while implementing BI. As BI has become the need of every organization today and in order to flourish and keep pace with existing technology it is indispensable.

LITERATURE REVIEW

BI Infrastructure Integration

Fast-paced technological challenges are faced by organizations. To meet those technological changes and arising issues strong infrastructure for Business Intelligence is needed. Seufert & Shiefer (2005) studied those infrastructure requirements and real-time business analytics integration in business operations. Findings suggested that any deficiency in integration as well results in inefficient outcomes. Architecture is also suggested that can salvage time and helps in making determinations.

Herschel & Jones (2005) emphasizes on the importance of integration of BI. So, BI can be considered a Knowledge Management subset. BI technologies are more mature, but BI needed a backup of knowledge base and BI integration needs the right knowledge management as well.

BI implementation strategies and purpose are too studied by Gangadharan and Swami (2004) and found that organizations always need access to information and monitoring of natural processes and performance for hunting down an organization efficiently.

BI Functionality

Rouhani & Savoiji (2016) examined the decision support organization and its advantages for firms. The decision support organization is the core part of BI. For seeing the connection between the decision support system,

BI, firm's advantages, survey was conducted from (228 companies) different industries of the Middle East. The solution supports the speculation and confirms the positive relationship between them.

Azvine (2005 and 2006) addresses the issues and problems in BI system functionality and suggested that it is necessary to implement BI in today's competitive environment to forecast and analyze tendencies and take advantage of BI. It also discussed how data are examined through a BI system to better organizational output by studying and anticipating the movements of various services and merchandise.

BI Self-service

Jurij Jaklic, Ales Popovic and Simoes Coelho (2011) identified the possible Impact of Information that is attained by BI Systems and the usage of that quality information in business routines and operations. The data were compiled and analyzed from medium and great firms of Slovenia. The findings hint that the attained information may cause a different effect according to the right use and manipulation of knowledge that could assist in better management if used wisely. Furthermore, quality information eliminates errors and gives accuracy and zips up response time to react to several positions.

Hou (2012) analyzes the electronic industry of Taiwan and BI usage in it. Data was collected from 330 users from electronic industry of Taiwan. The findings suggest that user satisfaction is positively linked to the user's performance and BI system. This research must be guided in different industries and in dissimilar states.

Capabilities of service-oriented decision support systems were discussed by Demirkan & Delen (2013), it is one of the emerging trends and for that agile application is selected for research. In this paper, different models are discussed, but some need to be discussed fully so, research in future is needed in this domain as well.

Performance Measurement Capabilities

Peters et al. (2016) found that how BI systems usage impacts the PMC and how it's quality enhances the competitive advantage of an organization. Three variables are selected for measuring business intelligence quality than its relationship is measured with performance measurement capabilities and how it impacts the competitive advantage

of the firm. It is necessary to adopt it in this fast paced technological and competitive era.

Okkonen (2014) researched the triangle of performance measurement, knowledge management and BI systems which revealed that due to rapidly changing market and technological environment, variety of new challenges and issues have arisen and to cope with the new technologies must be implemented through proper knowledge management techniques, while performance measurement capabilities must be enhanced at the same time by making appropriate use of BI systems. It was proven through results that knowledge management, performance measurement and BI systems are positively correlated with each other and best works in collaboration.

Vuksic Bach and Popovic (2013) critically took the interview from managers and employees of the banking and telecommunication sector. 4 organizations are selected for data collection, 2 from telecommunication and 2 from the banking sector where each is categorized as an early adopter or late adopter of BIS and BPM technology and their impact on their performance is measured accordingly. Interview questions are also made accordingly and on an organizational level not on functional at the departmental level. The results indicated that there is a need for commitment by employees to improve the sales and business processes, a firm cannot solely rely on BIS and BPM for better productivity.

Competitive Advantage

BI in SMEs is studied by Miyamoto (2014) by focusing on the role of competitive forces in Japanese culture. For competitive advantage, Michael Porter's five forces model is examined through the research framework in SME's, That how these five forces have the influence to gain competitive advantage along with the integration and application of BI systems. The sample is gathered randomly through different databases of Japanese businesses. The findings indicate that IT has become indispensable in carrying out each and every activity of the supply chain as it adds much value. Because of gaining competitive advantage, the company must offer something very timely and customer oriented that can be possible only through technological channels.

Firm's Performance

The article by AlešPopovič, BorutPuklavec, Tiago Oliveira, (2018) focused on how BIS impacts the performance of the firm. Data was

collected from one hundred and eighty-one small and medium enterprises and analyzed through PLS-SEM. The research findings revealed That BIS has a partial influence on performance of firms and BIS usage by managers and employees in a firm.

Caseiro (2018) is directly focused on BI with innovation and network learning as a mediator. Data is collected from 228 European firms that are just startup. The results of this research show that BI has a positive impact on all variables and organizational performance.

Arefin (2015) examines how organizational structure, processes, culture, and strategy influences the organizational performance and effectiveness with BI as a mediator. Data is collected from two hundred and twenty-five organizations in Bangladesh. The research findings indicated effectiveness along business intelligence system's effectiveness.

THEORETICAL FRAMEWORK

Business Intelligence systems are believed to be most usable and can be termed as the need of the time. BI infrastructure integration can be referred as data quality. BI functionality refers to the quality of the applications that process data into information. BI self-service and in performance measurement capabilities such information is mediated cognitively. Then, in competitive advantage, which brings up to superior business unit performance as compare to competitors (Grafton et al., 2010). And in final stage, the effect on productivity and execution is valued.

BI Quality

BI infrastructure integration (BIII) refers to the processes and structures of the database. BIII first connects primary data sources to the structure. When BIII is "low", data is not integrated in spreadsheets. When BIII is "high", it is a "common" in database configuration.

BI functionality is the serviceability of an application for interaction and usage with other data (Peng, 2007). When BI functionality is "low", reduced interaction occurs in spreadsheet. But, when BI functionality is "high", interaction and speed also becomes fast (Ariav, 1992). Therefore, BI functionality provides ease of piloting as well as authentic and precise data for use. Thus: H1. BI infrastructure integration \longrightarrow BI

functionality.

The concept of self service is originated her that is the frequency of private usage of a BI application (Hou, 2012). BI self-service is low when managers use it lees because of less usage. And it is high when it is used more frequently by managers.

It is observed from literature of other studies that BI functionality tends to increases the self-service. Because when interface is efficient and features are user friendly, managers are more likely to use it again and again. And can rely on the data shown on dashboards. So, H2. BI functionality \longrightarrow BI self-service.

BI Quality & PMC

PMC (Performance measurement capabilities) shows how managers are using measurement tools to maintain or alter a business unit for enhancing performance. (Simons, 1995). PMC has two different styles, diagnostic or interactive which works with cybernetic feedback loop processes, which also links BI to PMC (Otley, 2012). According to Huber (1991) “entity learns if, through its processing of information, the range of its possible behaviors is changed” and “an organization only learns if any of its units acquire knowledge that it recognizes as potentially useful to the system”, it links BI functionality with PMC. It leads to: H3. BI functionality \longrightarrow performance measurement capabilities.

When features are user friendly and easy to use then the self-service will be greater, that also increases the PMC because managers have more interaction with the system and dashboards, it will be easier for them to measure the performance. Shollo (2015). Thus: H4. BI self-service \longrightarrow performance measurement capabilities.

Links to Competitive Advantage

PMC must be capable to enhance competitive advantage. Data is transferred to all layers of power structure during performance measurement. Agreeing to the knowledge-based perspective, in which resources are immobile and heterogeneously distributed amongst competitors, value creation can be a beginning of relatively persistent competitive advantage (Grant, 1996). As such: H5. Performance measurement \longrightarrow competitive advantage.

Links to Firm's Performance

Côrte (2017) discussed that gaining competitive advantage is the only way to sustain in the market, which can be attained by using data analytics tactfully which leads to better performance of the firm. It is clear if the company is not getting enough competitive advantage, then its under performing or not matching the market criteria.

Researchers have bought forth various IT resources that can generate a competitive advantage. These resources include IT strategy, IT infrastructure and IT human capital (Yogev et al., 2013). Melville et al. (2004) observed that when the correct IT is functional within the right business process, the outcome is increased organizational performance and improved processes. According to Olszak (2014). Accordingly, the final hypothesis is: H6. Competitive advantage \longrightarrow firm's performance.

As, BIII, BIF, and BISS provide the base for BI quality in theoretical model. BIF and BISS together have an impact on performance measurement capability, which affects competitive advantage, which subsequently impacts on firm performance.

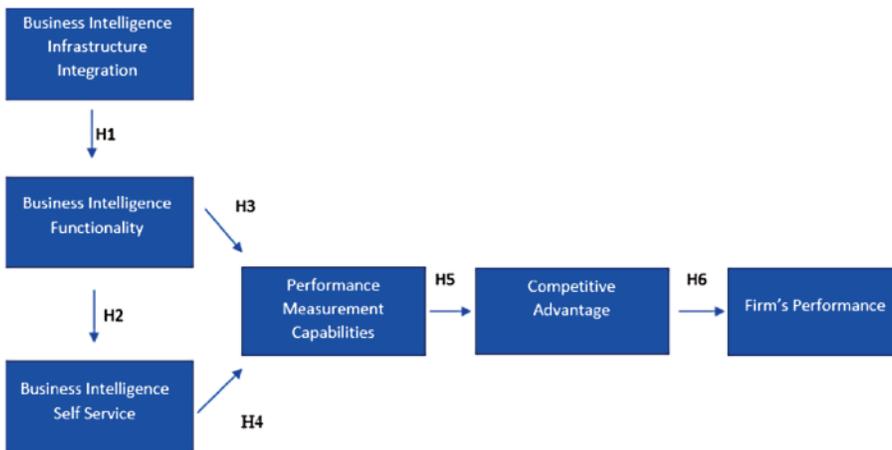


Figure 1 Theoretical Model

Industry Analysis

Many companies are using BI technology in Pakistan and as time passed more firms are moving towards it because it's the way to get a competitive advantage and in the future, it's going to become a need. BI is not applied in many of the firms in Pakistan and it is seemingly a brand new task for plenty of Pakistani firms, but still, businesses are imposing it and using it like Power

BI, SAP, click sense, and achieving their targets more effectively.

The BI system to put into effect for any enterprise intelligence for any endeavor is somehow extensive. All kinds of facts are lying on multiple data resources for example Share Point, SAP, Oracle, SQL server, and so on.

Toyota motors was dealing with the issue that when their supply chain or their line of production get disturbed, there was no visibility wherein the problem is residing so, they created a dashboard on which the executive management can see that how the production line is going on and in case of any trouble at any point, as an instance if the trouble is in delivery chain or the warehouse or bar code or meeting line the dashboard can reflect the immediate situation or exact condition of that point or assembly line so it will help to find out that wherein the reason and that is really effective in restoring that hassle at inappropriate time so, it helps in restoration of the issue and saving them time and cost and enhancing the performance.

Pakistani pharmaceuticals firms are currently working on the predictive analysis and perspective analysis to forecast their upcoming income, next 12 months sale, this year's ultimate sale and no longer only the sales and economic facts but they may be additionally managing the whole warehousing and supply chain, etc. SAP also suggested various BI systems, to compete globally (Gate, 2011).

METHODOLOGY

Sampling

300 responses are collected using convenience method of sampling from Pakistani employees, especially of Karachi are targeted in sampling, 130 responses were collected online and 170 are collected on paper for analysis.

Instrument

The questionnaire consists of two principal parts, Section A consists of questions regarding the demographics of a respondent, including age, gender, working experience, and professional level. The age limit given to have opted from the nominal scale is 21-30 years to 60 and above. Respondents are classified on gender bases as male and female. For setting the working experience range is provided from more than one year to 16 and above. While the professional level is encompassing non-managerial staff as well as first-line, middle and top-level management respectively.

Section B is composed of 26 main questions to measure 6 variables by Likert scales of five point in which 26 main items are adapted, first five questions are to measure BI infrastructure integration (IV), five for BI functionality (IV), two for BI self- service (IV), five for performance measurement capabilities (DV), five for competitive advantage (DV) and four for firm performance (DV). Respondents could agree or disagree on the provided five-points Likert type scale.

The questions are designed accordingly for conducting research and to get the required information and provide feasibility to achieve the objective of research.

Measurement Scales

The table below shows independent and dependent variables in which 26 items are adapted. Independent variable comprises of BI infrastructure integration, BI functionality, BI self-service whereas Dependent Variable comprises of performance management capabilities, competitive advantage and firm's performance.

The five items of BI infrastructure integration (IV) were adapted from the source Lior Fink, Nir Yogev and Edir Even (2016). Five Items of BI functionality (IV), two items of BI self- service (IV), the five items of performance measurement capabilities (DV) were adapted from Peters (2016). Three points of competitive advantage (DV) are adopted from Peters (2016) while the other 2 items are adopted from Schilke (2014). Firm's Performance (DV) having 4 items that were adapted from Elbashir Collier, & Davern (2008).

Table 1: Measurement Scales

Variable Measurement	Sources	Number of Items
Business Intelligence Infrastructure	Computed by the Author <u>Lior Fink</u> , <u>Nir Yogev</u> and <u>Edir Even</u> (2016)	5
Business Intelligence Functionality	Peters (2016)	5
Business Intelligence Self Service	Peters (2016)	2
Performance Management Capabilities	Peters (2016)	5
Competitive Advantage	Peters (2016)	3
	<u>Schilke</u> (2014)	2
Firm's Performance	<u>Elbashir</u> (2008)	4

DATA ANALYSIS

Demographic Information

Table 2: Respondents Profile

Name of Demographic	Demographic Features	Frequency	Percentage
Age	21-30	222	74%
	31-40	49	16.33%
	41-50	16	5.33%
	51-60	10	3.33%
	60 and above	3	1%
Gender	Male	207	69%
	Female	93	31%
Experience	Less than 1 year	56	18.66%
	1-5 years	151	50.33%
	6-10 years	48	16%
	11-15 years	22	7.33%
	16 and above	23	7.67%
Professional Level	Non-managerial Staff	50	16.67%
	First line management	120	40%
	Middle level Management	103	34.33%
	Top level Management	27	9%

The demographic data indicates that our most of respondents are male, 69% and female respondents are 31%. The most of the respondents, 74% are between 21 to 30 years of age, while 16.33% are from the age set of 31 to 40 years. 5.33% are from the age group of 41 to 50, 3.33% are in between 51 to 60 years of age and 1% are 60 and above. The most of respondents, 50.33% have working experience of 1-5 years while 18.66% are giving birth experience of less than 1 year. 16% of respondents have experience of 6-10 years, 7.33% of respondents have experience of 11-15 years and 7.67% of respondents have experience of 16 and above years. The professional level of respondents is non- managerial staff, first-course management, middle-stage management, top-level management that is 16.67%, 40%, 32.33%, and 9% respectively.

Descriptive Statistic

Table 3: Descriptive Statistic

Variables	Questions		Descriptive Stats		Confirmatory Factor Analysis		
			Mean	St.Dev.	Outer Loading	T Stats	P Values
Business Intelligence Infrastructure Integration	1	BIII1	4.127	0.961	0.842	33.313	0.000
	2	BIII2	4.097	0.960	0.882	58.685	0.000
	3	BIII3	4.103	1.023	0.790	23.534	0.000
	4	BIII4	4.053	1.025	0.849	44.180	0.000
	5	BIII5	4.167	0.927	0.805	27.580	0.000
Business Intelligence Functionality	6	BIF1	3.977	1.024	0.849	40.064	0.000
	7	BIF2	3.977	0.978	0.851	49.608	0.000
	8	BIF3	3.960	0.999	0.860	39.224	0.000
	9	BIF4	3.970	1.008	0.850	38.796	0.000
	10	BIF5	3.910	1.030	0.831	35.150	0.000
Business Intelligence Self- service	11	BIS1	3.860	0.891	0.887	45.358	0.000
	12	BIS2	3.850	0.987	0.913	79.234	0.000
Performance Management Capabilities	13	PMC1	3.907	0.882	0.739	22.535	0.000
	14	PMC2	3.787	1.024	0.848	44.143	0.000
	15	PMC3	3.870	0.905	0.770	24.750	0.000
	16	PMC4	3.820	0.880	0.759	23.785	0.000
	17	PMC5	3.837	0.893	0.728	18.280	0.000
Competitive Advantage	18	CA1	3.887	0.942	0.811	32.756	0.000
	19	CA2	3.850	0.984	0.842	37.056	0.000
	20	CA3	3.817	0.985	0.859	45.154	0.000
	21	CA4	3.837	0.961	0.828	30.450	0.000
	22	CA5	3.803	0.975	0.816	29.542	0.000
Firm's Performance	23	FP1	3.863	1.032	0.869	52.102	0.000
	24	FP2	3.930	0.969	0.854	47.629	0.000
	25	FP3	3.870	1.000	0.878	44.761	0.000
	26	FP4	3.863	1.064	0.803	26.054	0.000

The board presents the mean and standard deviation of the variables starting it with BI quality that is our independent one, which has further split up into three parts mediating BI Infrastructure Intelligence, BI Functionality, BI Self-Service mediating the relationship between BI quality and firms' performance whereas all three BI quality measures have greater influence on Performance Management Capabilities i.e. The variable which enhances competitive advantage and enhancing firms' performance as a result. The mean of the variables mentioned above range from 3.803 to 4.167 and SD from 0.880 to 1.064

Similarly, the mean of all the five items of the variable i.e. BI Infrastructure Intelligence range from 4.053 to 4.167 whereas SD 0.927 to 1.025 There are five items of the mediator Performance Management Capabilities and all the value of the mean range from 3.820 to 3.907 and SD 0.880 to 1.024 Likewise, the five items from Competitive Advantage and their mean value range from 3.803 to 3.887 and SD range from 0.942 to 0.985. Nevertheless, the firms' performance, which is our dependent variable, the mean and the SD value of all four items of a firm's performance are in the range 3.863 to 3.930 and 0.969 to 1.064

Concisely the most significant mean and SD are from the variable BI Infrastructure Intelligence BIII5 4.167 and SD 0.927 which clearly shows that this item has more impact on BI quality and firms' performance as compared to other items, on the other hand, mean and SD of the variable Competitive advantage CA5 3.803 and 0.975 which clearly revealed that this item has lowest mean.

In the above table, all the factor loadings of the variable's items exceed 0.05 range from 0.728 to 0.913, similarly, all the T values of the items are above the desired value i.e. $T > 1.96$ between 18.280 to 79.234 whereas P values of the items are significant range i.e. $P < 0.01$.

Structural Equation Modeling

We have used SEM for our research and Smart PLS. In addition, to assess the indirect and direct impacts testing was performed. The job of (SEM) is crucial for testing hypothesis and the bootstrapping and other calculation methods. It used to assess the basic connection among exogenous and endogenous factors. So as to check all immediate impacts, a strategy has been executed which is bootstrapping (Shrout, 2002).

Measurement of Outer Model

To find the reliability and validity, we performed a test of convergent validity and discriminant validity by using Smart PLS.

Factors Loading Significant

CFA is mentioned is descriptive analysis. Below 0.5 constructs are not necessary to mention in table while constructs with the loading of 0.5 are considered as strong.

Reliability and Convergent Validity

For the core reliability and steadiness of data, we use Cronbach’s alpha by following Anderson and Gerbing (1988) and for the validity as per Hair et al. (2006).

Table 4: Reliability & Convergent Validity

	Cronbach’s Alpha	Composite Reliability	AVE
BI Infrastructure integration	0.890	0.919	0.696
BI functionality	0.903	0.928	0.720
BI self-service	0.766	0.895	0.810
Performance management capabilities	0.828	0.879	0.593
Competitive advantage	0.888	0.918	0.691
Firm’s Performance	0.874	0.913	0.725

Table 6 shows the Cronbach’s value for BIII (0.890), BIF (0.903), BISS (0.766), PMC (0.828), CA (0.888), FP (0.874). Scales are reliable because they are above threshold of 0.70 Hair, (2010).

The composite reliability values are ranging from 0.87 to 0.93 which exceeds the bound of 0.7 which is indicating towards its reliability Bagozzi & Yi (1988).

The AVEs range from 0.593 to 0.810, which is greater than 0.5 hence showing its reliability (Chin, 1998).

Discriminant Validity:

Table 5: Discriminant Validity

Variables	BIF	BIII	BISS	CA	FP	PMC
BIF	0.848					
BIII	0.776	0.834				
BISS	0.701	0.636	0.900			
CA	0.662	0.644	0.601	0.831		
FP	0.659	0.655	0.649	0.748	0.852	
PMC	0.664	0.652	0.647	0.686	0.710	0.770

Table shows that the discriminant validity is achieved as the values are less than 1 which illustrates that this term is easily matched.

Model Fit Measures

The measurement model has a good fit.

Table 6: Model Fit

Fit Summary		
	Saturated Model	Estimated Model
SRMR	0.056	0.134
d_ ULS	1.105	6.312
d_ G	0.524	0.651
Chi-Square	925.779	1.058369
NFI	0.834	0.811

Hypothesis Testing

Bootstrapping is done for the testing of hypothesis in SEM, it gives the consistent and stable results. T values for structural model is obtained through bootstrapping. Path diagram is shown in figure 2. At 95% confidence level where alpha is 0.05 shows that relation is strong and t value is greater than 1.96 and p value is less than 0.05.

Structural Model

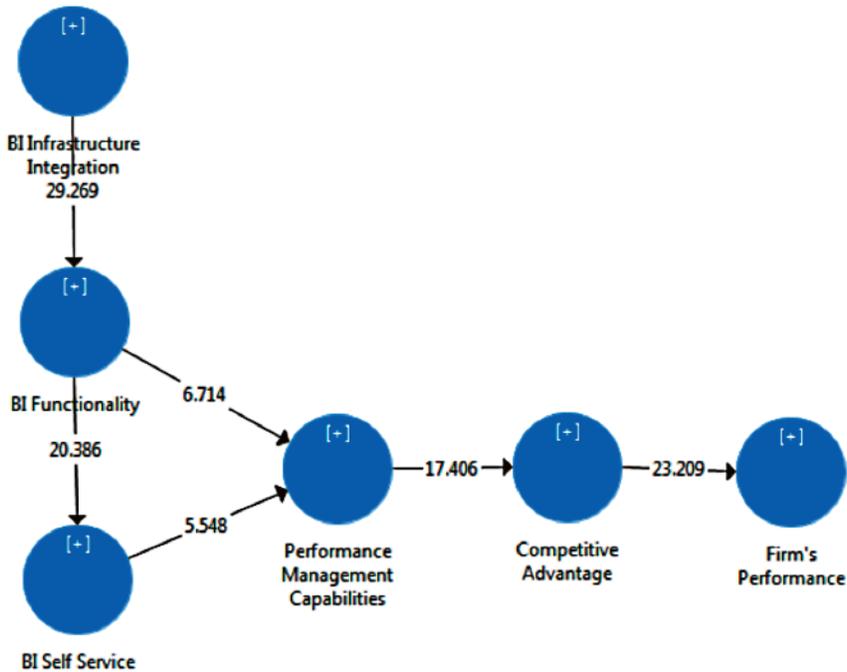


Figure 2: Structural Model

With the help of bootstrapping, all the extracted values (Table 5, path coefficient values and T statistics values of direct effects) clarify that BI infrastructure integration ($\beta = 0.778$; $t = 29.330$), BI functionality ($\beta = 0.702$; $t = 19.135$), BI self service ($\beta = 0.415$; $t = 7.104$), performance measurement capabilities ($\beta = 0.356$; $t = 6.047$), competitive advantage ($\beta = 0.689$; $t = 17.940$) and Firm's Performance ($\beta = 0.748$; $t = 22.713$) are having direct positive relationship, leading to the acceptance of all hypothesis.

Table 7: Path Coefficients & T Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)
BIII → BIF	0.776	0.778	0.026	29.330
BIF → BISS	0.701	0.702	0.037	19.135
BIF → PMC	0.415	0.415	0.058	7.104
BISS → PMC	0.356	0.356	0.059	6.047
PMC → CA	0.686	0.689	0.038	17.940
CA → FP	0.748	0.748	0.033	22.713

RESULT

According to the table 9, all hypothesis from H1 to H6 are well supported as a positive and significant relationship is seen.

Table 8: Hypothesis Testing

Hypothesis	Constructs	T Statistics (O/STDEV)	P Values	Status
1	BIII → BIF	29.330	0.000	Accept
2	BIF → BISS	19.135	0.000	Accept
3	BIF → PMC	7.104	0.000	Accept
4	BISS → PMC	6.047	0.000	Accept
5	PMC → CA	17.940	0.000	Accept
6	CA → FP	22.713	0.000	Accept

In order to measure the significance, the H1, H2, H3, H4, H5, and H6 were expressed as $T=29.330, 19.135, 7.104, 6.047, 17.940$ and 22.713 respectively ($T > 1.96$) whereas $P < 0.05$. So, consequently, we are accepting these hypotheses as well since all values meeting the criteria.

As shown in table 9, It is found that BIII has a positive association with BIF which is consistent with H1. Whereas, BIF has a positive association with both BISS and PMC that are consistent with H2 and H3 respectively. Subsequently, PMC have a positive association with both BIF and BISS, which is consistent with H4 and the PMC

enhance the CA, consistent with H5. Finally, the competitive advantage has a positive linkage with firm's performance, showing consistency with H6.

Table 9: Specific Indirect Effects

	Original Sample (O)	T Statistics	P Values
BIII \rightarrow BIF \rightarrow BISS	0.544	13.669	0.000
BIF \rightarrow PMC \rightarrow CA	0.285	5.976	0.000
BIII \rightarrow BIF \rightarrow PMC \rightarrow CA	0.221	5.615	0.000
BISS \rightarrow PMC \rightarrow CA	0.244	5.867	0.000
BIF \rightarrow BISS \rightarrow PMC \rightarrow CA	0.171	5.659	0.000
BIII \rightarrow BIF \rightarrow BISS \rightarrow PMC \rightarrow CA	0.133	5.352	0.000
BIF \rightarrow PMC \rightarrow CA \rightarrow FP	0.213	5.422	0.000
BIII \rightarrow BIF \rightarrow PMC \rightarrow CA \rightarrow FP	0.165	5.102	0.000
PMC \rightarrow CA \rightarrow FP	0.513	11.118	0.000
BISS \rightarrow PMC \rightarrow CA \rightarrow FP	0.182	5.382	0.000
BIF \rightarrow BISS \rightarrow PMC \rightarrow CA \rightarrow FP	0.128	5.131	0.000
BIII \rightarrow BIF \rightarrow BISS \rightarrow PMC \rightarrow CA \rightarrow FP	0.099	4.864	0.000
BIII \rightarrow BIF \rightarrow PMC	0.322	6.687	0.000
BIF \rightarrow BISS \rightarrow PMC	0.249	6.018	0.000
BIII \rightarrow BIF \rightarrow BISS \rightarrow PMC	0.193	5.749	0.000

Mediating Effect

To find the mediation between BII and BISS first we will analyze a direct effect between BIII and BI Functionality having $\beta=0.77$ then another effect of BI Functionality and BI Self-Service will be carried out. Findings showed as on $\beta=0.70$ and when mediated by BI Functionality $\beta=0.54$ which shows significant mediation. To analyze the mediation of PMC between BIF and competitive advantage, we will identify a relationship among BIF and PMC having $\beta=0.41$ then another effect of Performance Management Capabilities on competitive advantage will be carried out. Results revealed as on competitive advantage having $\beta=0.69$, and when it's mediated by Performance Management Capabilities $\beta=0.28$ which establishes a significant mediation. Also, mediation between BIII and competitive advantage will be tested via BI Functionality and Performance Measurement Capabilities which shows positive relations having $\beta=0.22$. The mediating effect between BI Self Service and competitive advantage will be carried out via Performance Measurement Capabilities $\beta=0.24$ which is a good mediation.

Afterward another mediating test between BI Functionality and competitive advantage through BISS and PMC having $\beta=0.17$ then another

mediating process will be done between. BII and competitive advantage via BIF, BISS, and PMC having $\beta=0.13$. Similarly, BI Functionality and firm's performance will be tested through PMC and CA findings clearly show a positive relationship as $\beta=0.21$. Afterwards BIII and firm's performance mediated through BI Functionality, Performance Measurement Capabilities and competitive advantage as $\beta=0.21$ which is a significant one. Another relationship between Performance Measurement Capabilities and firm's performance mediated via competitive advantage results revealed $\beta=0.51$. Similarly, BI Self-Service and firm's performance will be mediated by PMC and CA hence $\beta=0.18$. Nevertheless, the mediation test between BI Functionality and firm's performance carried out through BIF, BISS, PMC and CA and the result indicated a positive significant mediation i.e. $\beta=0.12$. BIII and firm's performance mediation test done through BIF, BISS, PMC and CA whilst findings revealed $\beta=0.09$. Another mediating test between BIII and PMC through BIF and found $\beta=0.32$. One mediation test is also carried out between BIF and PMC through BISS hence the results revealed a positive impact as $\beta=0.24$.

Finally, the last mediation test is done BIII and PMC through BIF and BISS as $\beta=0.19$ which defines there is obviously a mediation.

CONCLUSION

We carried out this research to investigate how BI quality enhances the PMC, competitive advantage, firm's performance. BI quality was measured through BIII, BIF, and BISS, which brings up to independent and feasible usage of the BI system by managers specifically in Pakistani firms. Right implementation and handling of BI improves the performance measurement capabilities that help in getting a better competitive advantage, which ultimately increases the performance of the firm.

The research was causal and the data was gathered by conducting a survey via questionnaire. 300 responses are collected from employees of different firms where BI is being implemented to test the hypothesis. The data analysis shows, the relationship among variable is strong and positive. Still, due to various reasons, such as low expertise and unavailability of BI statistics, there is not enough information specifically focusing on Pakistan that's why we conducted this research. BI system is increasing firm performance in Pakistani firms. Global BI's perspective has also influenced the BI industry in Pakistan.

The data through questionnaires from various Pakistani firms is gathered in research. Various employees dealing with BI on a regular basis and their responses.

In conclusion, based on the findings, this research proposes a practical recommendation. It is suggested for Pakistani firms to diagnose which areas regarding their usage of the Business intelligence system need to be improved with regards to their carrying out objectives. Afterward, they can modify their BI system in response to the diagnosis and invest more in BI to sustain in a competitive marketplace.

As new events are being stood up in BI so more variables must be studied for future inquiry. Employee's behavior towards BI adoption and upcoming challenges of BI in Pakistan are potential topics to be focused for future research work.

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EXAMINING THE ASSOCIATION OF ORGANIZATIONAL JUSTICE, JOB MOTIVATION AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR

Dr. Sadia Anwar*, Homan Memon**, and
Dr. Noor Muhammad Jamali***

ABSTRACT

This study has examined the chain collaboration of organizational justice and job motivation for the management of better performance of nurses through organizational citizenship behavior in the private hospitals, Hyderabad, Sindh. This study is explanatory in nature, which pursues to explain the collaboration of relationship of the variables that are setup for analysis. The respondents are nurses who have at least one-year experience in two private hospitals of Hyderabad. The stratified random sampling method was selected in this research study. The sample size was based on 234 nurses. The process of collection of data was finalized by using questionnaires. The Structural Equation Models (SEM) was used as an analytical tool for the testing of the hypothesis with the help of program analysis of moment structure (AMOS) version 24. The study found that the two factors of organizational justice named distributive and procedural has a positive and significant influence on the performance of nurses. The work motivation has also positive and significant influences on the performance of nurses concluding with Organizational Citizenship Behavior. As a result, the verdicts can be valuable for the two private hospitals specifically in Hyderabad region to develop the performance of nurses.

Keywords: *Distributive Justice, Job Motivation, Organizational Citizenship Behavior, Organizational Justice, Procedural Justice.*

INTRODUCTION

An effective and efficient organization is recognized from its high

*Assistant Professor, Institute of Commerce, University of Sindh, Jamshoro, Pakistan. sadia.memon@usindh.edu.pk

**Research Fellow, Institute of Commerce, University of Sindh, Jamshoro

***Professor, Institute of Commerce, University of Sindh, Jamshoro

quality and a virtuous performance of its human assets. Among them hospital is one of that organization which manages a great human resources. This service organization is exclusive in regards of human resources, and deals in huge amount of capital, science, technology, rules and strategies. The hospitals are known as such organizations because of its large need of capital investment for the fulfillment of its requirements. Technology and science are the essential part of it, as hospitals have expensive and sophisticated equipment which are required to get update time to time because of their various disciplines to face the challenges that may happen in this sector.

The services offered by the hospitals can be maintained only if it has a good rule, policies and strategies that are interconnected with each other. This can only be achieved by a good performance of the human resources available in the hospitals. This human capital of hospitals is categorized into three sectors, that is, certified experts, managerial and the custodian. Certified experts' deals with the healing process of patients through best treatments. This category is based on doctors, nurses, pharmacologists, nutritionists and others. The category of managerial members deals with the assistance of the certified experts predominantly by maintaining a good hospital's management, specifically, operational administrators, accountants and others. The custodian comes in that category of human resource factor that deals as warden, laundress, cleaner and porter etc. (Wu & Chiu, 2018; Ariani, 2012; Mangkunagara, 2000).

Among all these three categories the nurses play a vital role in a hospital. Though, the quality service accomplish by the nurses are mainly depends on the interaction process between nurses and patients, with associates and towards the concern hospitals. Such influential collaboration of nurses lay down a trend of the ideal performance while providing best services, which is according to the anticipations of the organization, and also explores an extra-ordinary reputation of nurses. In the organizations, this extra role behavior is known as an organizational citizenship behavior. In recent time, this organizational citizenship behavior has turn into one of the international strategic issues that is seeking a huge attention.

The performance of a hospital is crucially depending on the organizational citizenship behavior of nurses (Wu & Chiu, 2018; Ariani, 2012; Eisenberger, et al., 1990). The organizational citizenship behavior

occurs as a natural behavior that is beyond the job description (Jiang, Gollan, & Brooks, 2017; Organ, 1994). The positive influence of organizational citizenship behavior on the company assures the value-added performance of the human resources that provides the virtuous services to the shareholders of the company. Though the elements that may have influential effect on the organizational citizenship behavior in an organization include organizational justice along with the collaboration of job motivation (Singh & Singh, 2019; Ariyani, Haerani, & Maupa, 2016; Greenberg & Colquitt, 2005). It is simple to understand because when employees feel secured at their workplaces, then only they can accomplish their jobs effectively and efficiently. In the same way, when employees will get high motivation from the organization, the employees will give their best performance to achieve the targets of the organization. Likewise, with the feeling of secured and motivated the employees will consequently provide good service, vice versa to the organization.

One of the factor in arise of organizational citizenship behavior (OCB) majorly depend on the attitude shown by every individual for the motivation they receive in shape of remunerations, promotional opportunities, organizational culture, associations with supervisors, and relationships with other employers. The organizations always struggle to develop the high quality behaviors of workforces in order to achieve the targeted aims of the corporation. The decline in organizational citizenship behavior is sometimes because of the aspects that are not being met according to the expectations of the employees. This can be easily maintained by motivating the employees, by providing best working conditions, self-control, working environment, instructions, training and others. The organizational justice implies the view of employees about fairness at the workplace (Singh & Singh, 2019; Chan & Lai, 2017; Greenberg & Colquitt, 2005). A number of policies can be adopted by the organizations to improve employee performance by achieving high quality organizational citizenship behavior among employees through maintaining organizational justice and motivation according to the expectations of employees.

Though, the above discussed circumstances have not been achieved in some private hospitals of Hyderabad like Agha Khan and Maajee Hospital. While at the time of collection of the survey questionnaires some facts came around in regards of less pleasant relationship between companion nurses. This may happen because of the work division among morning,

afternoon and evening duties. Such problems take place because of some irresponsible nurses who ignore the schedule of the hospitals. Moreover, also the uncomfortable relationship between supervisors and peers were found at some places. The nurses were not satisfied from the salary packages that they were receiving from the hospitals. Some other problems like limited promotion and lack of transparency was analyzed which decreased the morality factor among the nurses which can be considered a major factor for the improvement of work quality. Such reasons were determined features that influence the organizational citizenship behavior of nurses in the concerned hospitals. This research study, will explore these factors furthermore to improve the performance of nurses in these two hospitals. Thus, the purpose of this research is to analyze the chain collaboration of factors of Organizational justice and Job Motivation on the Organizational Citizenship Behavior in Agha Khan and Maajee Hospital, Hyderabad, Sindh.

LITERATURE REVIEW

Organizational Citizenship Behavior and Organizational Justice

A huge literature emphasized organizational justice as a substantial interpreter of employee behavioral responses and reactions including organizational citizenship behavior (Singh & Singh, 2019; Chan & Lai, 2017; Karriker & Williams, 2009; Cohen-Charash & Spector, 2001; Beugré, 1998). The constructive benefits of organizational justice in organizations deals in long run that stand-in encouraging and developing working attitudes among the employees (Vainieri, Ferrè, Giacomelli, & Nuti, 2017; Cohen-Charash & Spector, 2001). There is a strong harmony that workforces both worth and mandate justice from their organizations (Singh & Singh, 2019; Chan & Lai, 2017; Cropanzano, Byrne, Bobocel, & Rupp, 2001).

A manifest factor to elucidate the effects of organizational justice in the organization is social exchange theory (SET), which highlights the communal exchanges of means from time to time (Colquitt & Zipay, 2015; Cropanzano & Mitchell, 2005; Blau, 1964). The social exchanges in the organizations are frequently evident through human resource assistances, such as incomes, promotions, and information, which reciprocates the behavior of employees by means of determination, benevolence, and performance (Wu & Chiu, 2018; Foa & Foa, 1980). Though, as long work forces have confidence inequitable decision outcomes as distributive justice,

along with the procedures involved in such decisions are unbiased as procedural justice, the exchanges will continue in terms of high quality behaviors (Chan & Lai, 2017; Colquitt, Baer, Long, & Halvorsen-Ganepola, 2014; Colquitt et al., 2013; Thibaut & Walker, 1975; Adams, 1965).

This research is based to explore the key improvements required in the domain of organizational justice and organizational citizenship behavior. Thus, the researchers have emphasized on the major factors distributive and procedural justice through which the response of the employees in association with organizational structures, strategies, and official incentive provision decisions can be analyzed for long run effects. Some of the researches explores that both distributive and procedural justice have informal impact in the organizations, due to the favorable atmosphere maintained by the executives, in regards of sharing information and sometime being respectful and courteous to the employees (Mattaet al., 2017; Scott, Garza, Conlon, & Kim, 2014).

Distributive justice highlights the equality in allocations of out comes comprising reimbursements, promotions and in official obligation (Karriker & Williams, 2009). However, the procedural justice deals with the fairness of the procedure in terms of strategies, policies and standards for the determination of best results (Chan & Lai, 2017; Cohen-Charash & Spector, 2001; Lind & Tyler, 1988). Once the employees feel satisfied in justice, their quality performance will be promoted through faith, belief, revelation and constructive behavior ((Li, Zhang, Zhang, & Zhou, 2017; Lam, et al., 2013). Though the citizenship behavior reveals serving voluntarily, ethically, and interacting with subordinates to improve performance in the organization for the betterment of employees (Li, Zhang, Zhang, & Zhou, 2017; Lam et al., 2013; Konovsky & Pugh, 1994; Niehoff & Moorman, 1993). Therefore, the researcher assume that the factors of organizational justice namely distributive and procedural justice plays an influential role in the development of organizational citizenship behavior. Thus, when employees feel satisfied from the expected and acceptable sources of justice, they get enthused to perform citizenship behaviors because of the organizational justice in the organizations.

Work Motivation and Organizational Citizenship Behavior

The term motivation has an origin from the expression to move, progress or ambition a task to accomplish with success. Among the factors of organizational resources, the human resource is the most imperative for

the organization's competitive advantage (Rizwan et al., 2010). The performance of employers determined by many aspects like personnel appraisal, motivation, remuneration and reimbursements, job satisfaction, job security and training for the development of employees. The structure of organization, strategies of company, organizational culture, relationship with subordinates but the element of motivation is having a great influencing impact on the performance of employees.

To lead the high level of employee performance and commitment, aspiring managers use motivation technique to achieve the organizational goals. Highly motivated human resource is quick to respond in fulfillment of their responsibilities as a result; they become determined to meet the objectives of the organization. Manzoor (2012) is of the opinion that no any human resource provides their services without cost or any incentive. Though, they look for high compensations, therefore the higher authorities in this regard should satisfy their employees by providing them their desirable remunerations. Among all the motivational factors money has a great significance, no any other motivator can be more influential than money in the enhancing the employee behavior (Sara et al., 2004). It has a great dominant character that fascinate, motivate and maintain higher levels of employees' performance (Manzoor, 2012). Rewards are the sources of job satisfaction among employees that enhance the quality of employee performance through organizational citizenship behavior (Kalimullah et al., 2010). Such supplementary encouragements make personnel more determined because of the extra outlays they receive other than the salaries. To establish the high level of performance among employees it is very essential for employers to understand the concepts of motivation (Ganta, 2014). Motivation can encourage the performance of employees in different ways likewise it supports in managing the citizenship behavior of employees, accomplish the goals of the organization, create job satisfaction, promotes the efficiency of employees, provide assistances to both employers and peers to achieve their individual goals, inspires team synchronization and ensures organizational citizenship behavior by encouraging the human resource.

Though in literature, organizational citizenship behavior has been found very beneficial in many organizations, it is significant to found the factors that are engage in organizational citizenship behavior in the place of work. Some of the researches have explored that individual factors lead to

organizational citizenship behavior has been broadly characterized into three areas: individual traits of personality, individual attitude towards fairness perception and qualities of a leadership (Singh & Singh, 2019; Borman, Penner, Allen, & Motowidlo, 2001; Pillai, Schriesheim, & Williams, 1999; Konovsky & Organ, 1996; Organ & Ryan, 1995; Bateman & Organ, 1983). The perceived faithfulness towards rules, organizational justice imitate suitable decision perspectives that has great influence on several essential job-related standards, comprising job attitudes of an individual, personal appraisal, deviance and citizenship along with return of outcomes from each unit-level (Singh & Singh, 2019; Colquitt et al., 2013; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). However, no any research is found investigating the chain collaboration of factors of organizational justice namely distributive and procedural along with job motivation towards the organizational citizenship behavior in the context of Pakistan. For the fulfillment of this gap, the researchers proposed to explore the factors of organizational justice with job motivation towards the organizational citizenship behavior among the nurses engage in Agha Khan and Maajee Hospital, Hyderabad, Sindh, Pakistan.

Conceptualization and Development of Hypotheses

Factors of Organizational Justice and Organizational Citizenship Behavior

Organizational justice is considered as a significant element for evaluations of employee in the organizations (Colquitt et al., 2013). The perception of justice explores the work outcomes as employees come to develop commitments to respond the fair treatment, received from the decision-making authorities, in the form of positive and constructive attitudes, determination, and productive work behaviors towards the organizations (Singh & Singh, 2019; Cropanzano & Byrne, 2001; Konovsky, 2000; Blau, 1964). Although, employees are concerned with any just or unjust treatment received by them to react with positive or negative approach, therefore the perception of justice can also improve or reduce (Park et al., 2015; Jones & Skarlicki, 2013; Hausknecht et al., 2011). The individuals can improve their perception about justice when they found their situation as being treated fairly, likewise reasonable increase in pays, increased input into decisions, however this can move reciprocal if they found their situations treated less fair in the way of unjustified pay cuts, decreased input beseeched. In this research it is explored that the organizational justice is changed systematically

meaningful, not random, fluctuations and therefore useful for prediction (George & Jones, 2000; Chan, 1998).

Thus, the concern of organizational justice is based on the perception of employees about the fair treatment they receive in return from their jobs, on the basis of distributive justice and procedural justice (Colquitt, 2001). The distributive and procedural justices emphasize on specific quality of outcomes distributive and the process of decision making. This can be considered as the role of the organization strategies and procedures that assure each employer in an organization will follow equivalent evaluation and performance standards. While comparing the distributive and procedural justices, the subordinates' perception of fairness receives from the higher authorities based on the chronological routine collaboration can be easily managed if the concerned authorities fulfill their responsibilities in rational manners. Several researches explore the distributive and procedural justice as a key factor of organizational justice has a great impact on employers approaches and performances in regards of behaviors (Chan & Lai, 2017; Ambrose & Schminke, 2009; Williams, Pitre, & Zainuba, 2002; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Moorman, 1991). In some other research studies the organizational marvels in concern of organizational justice have focus on diverse dynamics (Rubenstein, Allen, & Bosco, 2017; George & Jones, 2000). However, the conceptualization of researcher proposed, that employees apply the factors of distributive justice, procedural justice and job motivation to make sense of justice events in their job career. Moreover, employees analyze from these factors of organizational justice and motivation about the organizational authorities which assist them to predict about their future. Thus, organizational justice can be considered as an essential factor in organizational citizenship behavior (Singh & Singh, 2019; Organ, 1988). The two theories social exchange theory and equity theory are the origin for enlightening the relationship between organizational citizenship behavior and organizational justice (Singh & Singh, 2019; Rubenstein et al., 2017; Moorman 1991; Adams, 1965; Blau, 1964). According to equity theory employees take efforts to adjust their struggles in order to reduce the anxiety that has been produced due to inequity they receive from the organization (Adams, 1965). Results of such fairness or unfairness act of higher authorities can be the cause root of organizational citizenship behavior (Singh & Singh, 2019; Organ, 1988). However, the theory of social exchange well-thought-out the

significance of organizational citizenship behavior as an interchange of relationships among employees and employers (Moorman, 1991; Organ, 1990). With the support of literature, the employees satisfied with the fair treatment of authorities incline to participate in organizational citizenship behavior (Chan & Lai, 2017; Wong et al., 2006). When the employees found themselves as valuable resource, the fairness in procedures can perform as a channel to communication. The welfare of the employees in the organizations are also sustained by the employers by means of organizational citizenship behavior (Chan & Lai, 2017; Niehoff & Moorman, 1993; Lind & Tyler, 1988). Whereas, the employees suffering from discrimination or inequality would pull out their organizational citizenship behavior or make their struggles limited to accomplish the contract based obligations of organization (Fassina et al., 2008). A number of research studies have established the affirmative relationship among the factors of organizational justice that is distributive and procedural justice with the organizational citizenship behavior. The anticipation of organizational citizenship behavior can be explored by distributive and procedural justice that has a positive relationship based on fair interactive behavior of employers ((Li et al., 2017; Karriker & Williams, 2009; Colquitt et al., 2001; Cohen-Charash & Spector, 2001). Subsequently human resources are more motivated to fulfill their responsibilities and remain faithful to their organizations by interchange in a fair working environment when they receive fair outcomes (Chan & Lai, 2017; Karriker & Williams, 2009; Zapata-Phelan et al., 2009; Cropanzano & Mitchell, 2005), thus, the relationship between organizational citizenship behavior and distributive and procedural justice was hypothesized as follows:

H1 *Distributive Justice has a substantial impact on the performance of nurses towards organizational citizenship behavior.*

H2 *Procedural Justice has a substantial impact on the performance of nurses towards organizational citizenship behavior.*

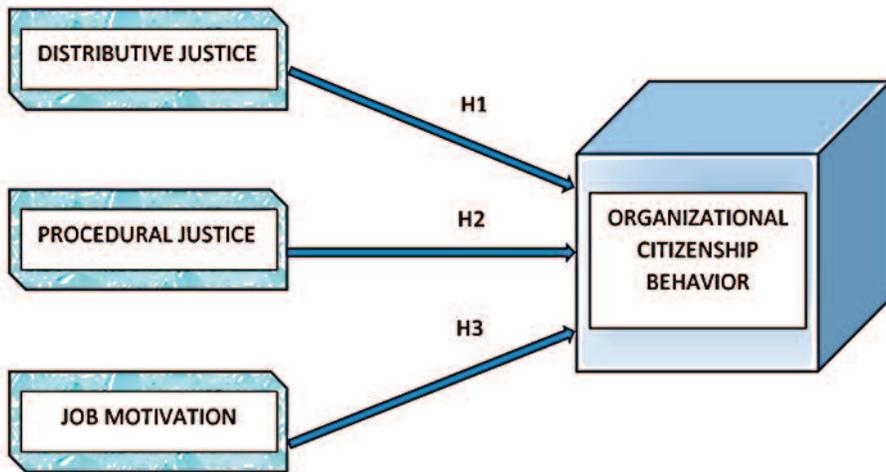
Job Motivation and Organizational Citizenship Behavior

From the extent literature review the relationship between motivation and organizational citizenship behavior was found very strong and affirmative. Huge literature of organizational behavior explores that the organizational citizenship behavior is based on motivational attitude of employees that assures organizational citizenship behavior develops due to motivation (Davila & Finkelstein, 2013; Ariani, 2012). Some of the researchers are of the opinion that employees engaged in organizational

citizenship behavior depends on the perception of authorities developed for the motivation of employee and to accomplish their expectations (Allen & Rush, 1998). As a result, the expectation that there is a substantial impact of sources of motivation in the development of relationship between employee organizational citizenship behavior was further explored (Ghanbari & Eskandari, 2013). Conferring to organizational citizenship behavior dimensions and a meta-analysis conceptualization the highly correlated relationship between motivation and organizational citizenship behavior was recognized with no obvious distinction in relationships with the most popular set of organizational citizenship behavior precursors (LePine, Erez & Johnson, 2002; Organ, 1988). Thus, with the assistance of intrinsic motivation the employers encourage their undertakings in a satisfying work environment for themselves and for their subordinates. Thus, it can be assumed that employers who enjoy their work are more likely to assist others and create a helping working climate and while finding organizational citizenships behaviors as pleasurable. Preceding researches indicated that there is a negative impact of extrinsic motivation on organizational citizenships behaviors, for the reason that the extrinsic motivation is based on the component of social reward like wages, salaries remuneration however the organizational citizenships behaviors cannot be provided from such formal rewards by the higher authorities (Barbuto et al., 2000; Barbuto & Scholl, 1999). This concept was sustained by Herzberg's motivation theory that explores the factors of extrinsic rewards have not much strong motivation level, its presence can only avoid the dissatisfaction of employees. Though, current research study demonstrates that intrinsic motivation has excessive influence on organizational citizenships behaviors without ignoring the impact of external motivation. Both the intrinsic as well extrinsic motivation in corporation improves and supports the organizational citizenships behaviors (Ibrahim & Aslinda, 2014). The intrinsic conditions and extrinsic rewards both can motivate the employees in same manner and this can provide top priority to the organizational citizenship behavior. According to the opinion of Organ (1997) employees practice indirect and informal views about future rewards in their decisions to perform in certain organizational citizenship behaviors. Though, the highly motivated employees are found highly committed to contribute in the success of organization and execute the organizational citizenship behaviors (Ibrahim & Aslinda, 2014). Consequently, the elements that can have mediating role like perceived organizational support, job satisfaction, psychological

empowerment, job involvement, employee engagement, organizational justice and the combination of intrinsic and extrinsic motivation based on expectancy theory of Herzberg's Two Factor theory, that may ground the basis for high level of organizational citizenship behavior. Thus, the correlation among job motivation and organizational citizenship behavior was hypothesized such as:

H3 Job motivation has a substantial impact on the performance of nurses towards organizational citizenship behavior.



RESEARCH METHODOLOGY

This research study has taken place to examine the association between organizational justice factors such as distributive, procedural and job motivation factors and organizational citizenship behavior. The adoption of cross-sectional approach is implemented in which the data was collected through a survey questionnaire.

Population and Procedure

Population of this research study are all nurses in 10 patient wards at Agha Khan Hospital and 8 patient wards at Maajee Hospital. Through random sampling the data was collected from the nurses on duty. The purpose behind this study is to examine the association among the factors of organizational justice that are distributive and procedural along with the factor of job motivation towards the organizational citizenship behavior in private sector hospitals. Distribution of survey questionnaire was completed by the direct personal visit to the participants. The collection of primary data in this study

were obtained using a closed ended questionnaire. The consent from the participant to participate in this research study was taken through a formal consent form along with the covering letter explaining the purpose of this research, then the questionnaires were dispatched to individual separately. Thus, the responses of this survey questionnaire was measured on the basis of five point Likert scale where 1 specifies the concern of strongly disagree, 2 exposes the level of disagree, 3 expresses the degree of uncertainty, 4 explores the agreed level of response, however 5 directs the concern of strongly agree.

Measurement Scales

The application of independent variables by the researchers are distributive, procedural, and job motivation along with the demographic information about the respondents and the organizational citizenship behavior was observed as dependent variable. With the assistance of five-point Likert scale, the variables were measured through various items to analyses the responses of the respondents.

Distributive justice- This independent variable was analyzed by consuming four items that were formerly settled by Leventhal (1976) and further modified by Colquitt, et al., (2001).

Procedural justice- This independent variable was explored with the usage of seven-item scale settled by Colquitt (2001), initially based on Leventhal (1976) and Thibaut and Walker (1975).

Job Motivation-This scale was measured six items adapted by the index scale that was developed by Smith, Kendall & Hulin (1969).

Organizational citizenship behavior-Aneight-item scale was used to measure respondents' organizational citizenship behavior moderated by Podsakoff et al. (1990).

Demography-The demographic scale was based on age, years of working, gender, marital status, and educational level.

DATA ANALYSIS AND RESULTS

The analyses of data were accomplished by using Statistical Package for Social Sciences (SPSS) version 24.0 for windows and Analysis of Moment Structures (AMOS).

Assessment of Reliability

The authorization of reliability known as internal consistency of the survey questionnaire items was confirmed through Cronbach's alpha. Where, the overall reliability was found to be 0.87, according to George and Mallery, (2003) which is considered as excellent. Though, the reliability of other factors were found satisfactory (Table 1).

Table 1: Reliability of Factors N= 234

S.No.	Variables	Variable Code	Alpha
1	Distributive justice	DJ	.89
2	Procedural justice	PJ	.88
3	Job motivation	JM	.78
4	Organizational citizenship behavior	OCB	.82

Descriptive Statistics

The observation of mean and standard deviation explores the significance of collection and distribution for a data set that has been gathered from the respondents. The range of mean was observed among 2.12 to 3.11. Although the range of standard deviation persisted among 1.09 to 1.52 (Table 2).

Table 2: Descriptive Statistics N=234

S.No.	Variables	M	SD
1	Distributive justice	2.74	1.40
2	Procedural justice	2.12	1.52
3	Job motivation	3.09	1.26
4	Organizational citizenship behavior	3.11	1.09

Note: M=mean, SD=standard deviation.

Structural Modeling Testing

Through the technique of Structure Equation Modeling (SEM) this research study has approved the relationships between the dependent and independent variables. However, the values of fit indices put forward that all the indicators of model fitness indicate the endorsed values (Marsh & Hocevar, 1985; Hair et al., 2006) (Table 3). As a result, the fitness of model expresses the chain collaboration of distributive justice, procedural justice, job motivation on organization citizenship behavior. Moreover, the covariance among the variables was also assured along with factor loadings (Figure 1).

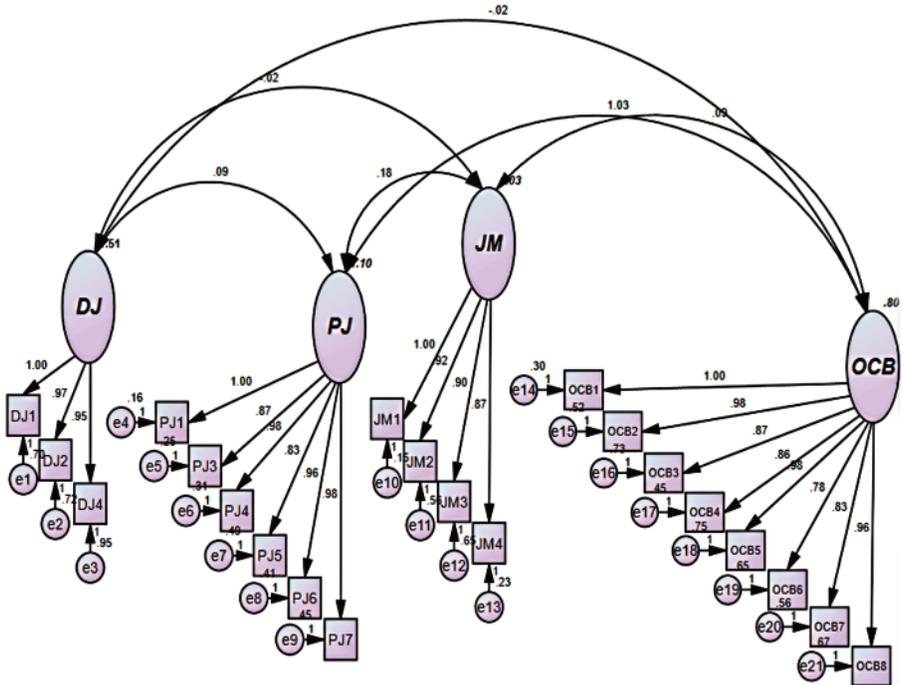


Figure.1 Model Analysis Using SEM

Note: DJ= distributive justice, PJ=procedural justice, JM=job motivation, OCB=organizational citizenship behavior.

Table 3: Overall Fit Indices from SEM Analysis

Model fit indicators	χ^2	Probability	χ^2/df	TLI	CFI	RMSEA	GFI	AGFI
	302.577	0.000	2.434	0.853	0.90	0.066	0.940	0.93

Hypotheses Testing

On the basis of regression weights such as standard error (ER) and critical ratio (CR) by showing significant path at the .05 level in which the three asterisks (***) indicate significance smaller than .001, the analyses of hypotheses were confirmed through Maximum Likelihood Estimates.

The regression weights conclude (S. E=.049; C. R=4.223; $p < .001$) (Table 4). Therefore, hypothesis H1 was accepted. The values of regression indicate (S. E=.050; C. R=-3.26; $p < .001$) (Table 4). Therefore, hypothesis H2 was supported. Parallel to this, the value of third

hypothesis in the regression weights were (S. E= .043; C. R= .080; $p > 0.932$) (see Table 4). As a result, H3 was rejected.

Table 4: Regression Weights

	<i>Dependent Variable</i>	<i>Path</i>	<i>Independent Variables</i>	<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P</i>
H1	Organizational Citizenship Behavior	⇐	Distributive justice	.278	.049	4.223	***
H2	Organizational Citizenship Behavior	⇐	Procedural justice	.159	.050	3.26	***
H3	Organizational Citizenship Behavior	⇐	Job motivation	.030	.043	.080	.932

Note: SE=standard error, C. R= critical ratio, p=significance level

DISCUSSION AND CONCLUSION

This research study was conducted to examine the association of factors of organizational justice and job motivation towards organizational citizenship behavior. To accomplish this purpose, a survey questionnaire was adopted to analyses the organizational citizenship behavior among nurses of private hospitals in Sindh, Pakistan. The overall reliability was maintained as .87, whereas the reliability of other factors were also found satisfactory.

The survey questionnaires that were received by the researcher from the respondents, was having total number of items. In the initial stage of return questionnaire, total number of items was 25 (distributive justice =4, procedural justice=7, job motivation=6 and organizational citizenship behavior=8). In the process of Exploratory Factor Analysis (EFA) some inappropriate items such as 2 from procedural justice, 1 from distributive justice and 2 items from the job motivation were not loaded above the suggested value of factor loading 0.5 (Hair et al., 2006). Although all (8) items of organizational citizenship behavior factor were loaded above the value of .5 (Hair et al., 2006). Thus, the items that were not loaded were excluded from the further analysis of this research.

The proposed H1 distributive justice has a significant influence on the performance of nurses towards organizational citizenship behavior. The analyses of this research confirm the significant influence on the performance of nurses towards the organizational citizenship behavior in

Hyderabad, Sindh, Pakistan. These results are consistent with researchers like Cohen-Charash & Spector, (2001); Cropanzano & Mitchell, (2005); Karriker & Williams, (2009); Zapata-Phelan et al., (2009) & Singh & Singh (2019) who confirmed the positive relationship between distributive justice and organizational citizenship behavior. Thus, the proposed H2 procedural justice has a significant influence on the performance of nurses towards organizational citizenship behavior. The outcomes of this research were also supported by the various scholars such as Cohen-Charash & Spector, (2001); Cropanzano & Mitchell, (2005); Karriker & Williams, (2009); Zapata-Phelan et al., (2009); Singh & Singh (2019) according to whom procedural justice has also positive relationship with organizational citizenship behavior.

Regarding the results of final hypothesis H3, the regression weights explored the non-significant relationship between job motivation and organizational citizenship behavior. Thus such negative results are according to the Barbuto and Scholl, (1999); Barbuto et al. (2000); & Ahmed & Khan, (2016). These researchers have also discussed the positive and negative relationship between job commitment and organizational citizenship behavior. In conclusion, the analyses of this research study determined from the model analysis through structural equation modeling that there is a significant influence of distributive and procedural justice on the performance of nurses towards organizational citizenship behavior. Whereas, there is no significant influence was found of job motivation towards organizational citizenship behavior among the nurses of private hospitals in Hyderabad, Sindh, Pakistan. This may be due to the fact that the relationship between fellow nurses was less pleasant, because of the division of work among morning, afternoon and evening duties. Some other complications may include due to the irregularities of some nurses. Furthermore, one of the fact could be the less coordination among the employers and subordinates. One of the important factor that was explored was the dissatisfaction of the nurses from the salary packages that they receive. Along with above concluded problems, some other are as follow like limited promotion and lack of transparency that demotivate the morality of the nurses in assuring their quality of work. On the basis of above findings, both hospitals should make developments toward the variables like job motivation to enhance the performance of nurses in their hospitals. Along with this they must undertake such policies and procedures that

optimize the performance of nurses. As a result, still there is much remain to be done by these two hospital in increasing the performance of nurses in regards of enhancement of organizational citizenship behavior.

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PERCEIVED IMPACT OF OFFICE DESIGN ON PERFORMANCE OF FACULTY: EVIDENCE FROM FACULTY MEMBERS WORKING WITH LEADING HIGHER EDUCATIONS INSTITUTES OF KARACHI

Faisal Sultan*

ABSTRACT

Office design is treated as one of the most important elements which affects employee performance and well-being. Researchers from all over the globe are continuously striving to improve this issue through systematic research activities. Although in Pakistan research work associated with this issue is not only rare but also does not have completeness and most of the articles are banking and telecom industries. Thus, there is potent need to analyze the impact of office design elements with detailed perspectives of variables on larger population size. This study tries to combine variable inventory from prior studies and conduct the research on higher educational institutes which are most dominant part of higher education sector of Pakistan. SMART PLS has been incorporated for data analysis and predicted that entire ranges of office design elements are significant on the performance of faculty members of higher educational institutes. Although relationship with supervisors as a moderator is diminishing the impact of variables of office design and sometimes changes the effect from positive to negative.

Keywords: *Office Design, Higher Educational Sector, HEIs and Employee Performance*

INTRODUCTION

Most of the times work environment and office ergonomics are the two major elements which shape up employee productivity (Sehgal, 2012). Although in between these two, office design is an element which might foster productivity at employee as well organizational level (El-Zeiny, 2012). Although employee productivity is prime dependent variable in

*Assistant Professor, KASBIT, Karachi

industrial & organizational psychology (Borman,2004) but working condition of an average office is causing exhaustion and fatigue (Chandrasekar, 2011). Similar has been also indicated by Riaz, Shoaib and Sarfraz (2017) that workplace design is a major barrier for employee productivity rather than optimal arrangement of accessories. Study of Riaz et al. (2017) also indicated poor workplace design actually hurts employee's health and well-being which ultimately resulted in decrease in productivity.

STATEMENT OF PROBLEM& DELIMITATIONS

It has been observed that firms are reluctant to invest in office design facilities as they seem to be cost centered for most of the organizations (Jaffri, 2015). Similar is valid for Pakistan where the companies are not paying desired attention towards office design (Hameed & Amjad, 2009). Although Jaffri (2015) indicated that adequate facilities of office design might able to induce level of employee productivity. Study also indicated that researchers must increase their focus towards office design through variation in data collection approaches.

Similarly, has been highlighted by Riaz et al., (2015) that there is a severe need of research on office design facilities with respect to Pakistan through taking other industries than IT. Hence studies based on other sector than IT (Riaz et al., 2017; Ullah, Mughees & Mirza, 2018), Telecom (Ullah et al., 2018) & Nadra (Jaffri, 2015), and different regions (Jaffri, 2015) are optimal to induce learning and applicability of results (Jaffri, 2015). Therefore to conduct study effectively research process has been linked with higher education sector, as the sector is treated as one of the most important sector for the development of any economy. Similar findings are associated with Pakistan, where higher education sector is also dominated by higher educational institutions (HEI's). Although there is a significant lacking of professionalism and skills in teachers hence products of the sector aren't as per required standards (Asghar, 2019).

THEORETICAL FRAMEWORK

This is supported by Parveen, Sohail, Naeem, Azhar, and Khan (2012) that maintenance of temperature is essential for work performance. On the other hand, experiment conducted by Ulrich (2002) to introduce flowers and plants at workplace induces the importance of color of workplace. Ulrich (2003) also indicated the impact of colors on innovative thinking and techniques applied by male and female employees for solving problems. Although Sarode and Shirsath (2012) posited that lightening, noise, color & air quality are the

elements of office design which are interconnected with each other.

On the contrary study of Sehgal (2012) conducted in India use furniture, noise, temperature, lighting and spatial arrangement for evaluating employee productivity. The model is similar as the model of the study used by Hameed and Amjad (2009) for evaluating the employee productivity in banking sector of Pakistan. The variable inventory of Hameed and Amjad (2009) replicated by Sehgal (2012) to indicate importance of office design in India's scenario and also replicated by Akhtar Ali Salman Ur-Rehman and Ijaz (2014) in telecom sector of Pakistan. Although Parveen et al. (2012) indicated that elements of work environment must be treated differently and must not be treated as the part of office design. Thus, it has been revealed that employee performance has been affected by variable associated with office design as well as work place, but Parveen et al. (2012) uses furniture and temperature as the major office design elements and communication and workload and relationship with boss as the major elements of work environment.

Study of Manggo (2014) conducted in Indonesia uses color, natural air quality, Lightening, noise, spatial arrangement, furniture and work-flow as the major variables of office design. Contrary to these latest study conducted in Pakistan by Jaffri (2015) uses furniture, noise, lightening & spatial arrangement are the major determinants of office design. Similarly study of Sultan et al. (2016) uses noise, air-quality, lightening, color, office-furniture, office-equipment, communication and spatial arrangements as variable inventory. Contrary to these Saha (2016) indicated ten variables including lightening, temperature, noise, air-quality, furniture and spatial arrangement in addition with work-space, privacy, individual-design & aroma. Though recent work of Riaz et al. (2017) uses furniture, equipment, lightening, noise, temperature and spatial arrangements as the indicator of employee lesser productivity & discomfort. Pickson Bannerman and Ahwiring (2017) also uses same number of variables to indicate impact of office design on employee productivity with reference to Ghana. Although their variable inventory is composed of one variable from work-environment and two of the variables are general design and workplace décor, which are not focused by most of the studies due to their generic nature. Hence variables considered potent are spatial arrangements, workplace flexibility and comfort, space available to office, state of furniture, state of equipment's, room temperature and air quality, lightening and level of noise.

Considering all the studies, it has been revealed that there are 11 potent variables which constitute office design but most of the studies uses temperature, color, noise, lightening, air-quality, office furniture, office equipment's and spatial arrangement. Therefore optimal to use eight independent variables for this study with consideration of Cummings and Schwab (1973) who highlighted that supervisor's attitude also affects the level of employee performance. Similar has been found valid through Parveen et al. (2012). Therefore, supervisor's attitude has been used as the moderating variable in the study while variables like work process (Manggo, 2014) and communication (Sultan et al., 2016) are not been used in the study.

SIGNIFICANCE

The significance of the study has many folds as Hansika and Amarathunga (2016) indicated that office ergonomics is in the list of three most impactful factors on employee performance and level of job satisfaction. Statements are supported by Riaz et al. (2017) poor office ergonomics resulted in decrease of employee productivity and also creates negative influence on employee's health. Moreover, significance of study has further been optimized by Jaffri (2015) that in Pakistan less focus towards office design elements forces employees to perform tasks with no or minimal facilities of office design. Therefore, there is a significant lacking of studies which can conceptualize the framework through using complete mix of important variables. Especially when top management needs to have a cost-benefit analysis for optimizing office design (Wah, 1998) the moderation of supervisor's support in work environment is making study more impactful. Hence, this study is deemed to be pervasive in nature and might be used by the researchers, academicians and corporate entrepreneurs not only to optimize office design, but also to conduct further research work in academia and pragmatic context.

RESEARCH HYPOTHESES

H_{1A}: There is a positive relationship between lightening and employee performance

H_{2A}: There is a positive relationship between color and employee performance

H_{3A}: There is a positive relationship between noise and employee performance

H_{4A}: There is a positive relationship between air quality and employee performance

H_{5A}: There is a positive relationship between temperature and employee performance

H_{6A}: There is a positive relationship between office furniture and employee performance

H_{7A}: There is a positive relationship between office equipment and employee performance

H₈A: There is a positive relationship between spatial arrangements and employee performance

H₉A: Negative Supervisor Attitude & Leadership Style does moderates the relationship between office equipment and employee productivity

H₁₀A: Negative Supervisor Attitude & Leadership Style does moderates the relationship between spatial arrangements and employee productivity

LITERATURE REVIEW

Khedkar and Pawar (2015) indicated that organizations willing to survive in this massive era of competition must focus on health and happiness of their workforce. This will also aid management as without proper office design facilities management might failed to utilize optimal capacities of workforce (Sehgal, 2012). Linking this statement with the statement of problem, researchers deemed to use reference of Ajala (2012) which indicated that office design varies from one company to another (Khedkar & Pawar, 2015). Although effective facilities associated with office design are always resulted in attraction, satisfaction, motivation & retention of employees. This is valid as office design is efficient in making people happy while working & also provide them pride and purpose to reach goals as per their capacities and standards (Saha, 2016). Although to device effective office design and facilities, management must understand that how workplace affects behavior of employees & how work force behavior is correlated with performance at workplace (Parveen et al., 2012). Studies addressing office design elements are conducted all over the globe and highlighted elements which are creating positive impacts and negative impacts on employees (Sarode & Shirsath, 2012). Although Riaz et al. (2017) indicated need of further studies on office design elements therefore the literature will address all the potent variables highlighted by prior studies and theoretical framework.

Lightening

Artificial light is treated as important element in office as well as in any learning environment (Knez & Hygge, 2001). One of the initial studies on office design facilities indicated that considerable increase in indoor lightening at workplace is treated as the efficient technique to enhance level of productivity (Abdou, 1997). Lightening has also numerous intangible benefits as it decreases rates of accident and also optimizes employee morale (Liaqat, Chang, Gani, Ab Hamid, Toseef, Shoaib & Alli, 2017). Similar has been evident through Ahmad Khan and Ali (2016), that light has been directly associated with the level of performance of employees.

Study also indicated that the relationship exists as lightening system does not only affect eyes but also has a correlated with headache and nervous complaints. Hence it is legitimate to believe Riaz et al. (2017) that lightening is a significantly important factor in creating conducting work environment. Similar has been revealed by Yusof et al. (2017) that poor lightening facilities create more drastic effect on productivity of male employees.

Color

Kamarulzaman Saleh Hashim Hashim and Abdul-Ghani (2011) indicated that color is defined as visual phenomenon which we observe due to prompt of light. It is treated as one of the ecological factor which affects employee performance at workplace (Vischer, 1989). Eiseman (2006) posited that there is no question regarding the significance of color in workplace in fact its structure and shades influence functions performed in offices (Guest & Van Laar, 2000). This is found to be valid as everyone has own way to experience color as reaction towards color is linked to one's education, socio-economic level, culture & genetics. Thus color has a potent impact on the level of productivity of individual working in any organization (Kamarulzaman et al., 2011). Use of color will also make workplace more attractive, efficient to work as well as attractive if management in corporate facilities in accordance with its employees (Eiseman, 2006).

Noise

Riaz et al. (2017) indicated that there are several studies which indicated impact of noise on performance of employees. Although it is termed as non-tolerate able element associated with office design (Kamarulzaman et al., 2011). This statement is valid as noise does not only include discussion and words but also noise made by machines and tools used in office (Kamarulzaman et al., 2011 & Loewen & Suedfeld, 1994). This is legitimated by the experiment conducted by Toftum Lund Kristiansen and Clausen (2012), which indicated that increase in noise leads to decrease in level of productivity. Similar has been indicated by the study of Jaffri (2015) that most disastrous element for employee productivity exists in the form of noise which is produced by speeches, telephones and traffic etc.

Although effect of noise on the level of productivity is based upon of intensity of sound, duration, exposure to sound and also on nature of task

that needs to be performed. Smith, (1989) also indicated that noise has different impact on both the genders as indicated by Amina and Amjad (2009), that female prefer chatting and discussion and hence they are able to work better as compared to their counterparts in noisy environments.

Air Ventilation

Quality of office design is of immense importance as employee spend extensive time inside their offices (Dorgan & Dorgan, 2005). Good air quality in offices does not only decrease health complaints, but also optimizes the level of productivity (Dalbokova & Krzyzanowski, 2002). Similar has been indicated by Ahmad et al. (2016) that quality of production is optimized due to good indoor air quality. Hence there is sufficient evidence to believe Dorgan and Dorgan (2005) that occupants' level of productivity is negatively related with poor indoor air quality.

Temperature

Study of Montgomery (2004) highlighted the provision made by World Health Organization (WHO) that maximum limit of temperature at any working place is 24°C. This provision has been made as raise in temperature might diminish productivity through affecting Shaken Baby Syndrome (SBS) symptoms and decreased satisfaction with air quality (Hygge & Knez, 2001). Sparks, Cable, Doran, and Maclaren (2005), also indicated that increase of temperature might harm performance of employees. Although recent work by Riaz et al. (2017) makes some insertion that length of the task & duration for which employee experiences increased level of temperature also have significance impact on performance.

Seppanen Fisk and Lei (2006) conducted an experiment to check the impact of temperature on employee productivity through excluding the impact of poor ventilation. This has been done to avoid any misunderstanding regarding the impact of poor temperature, as the combination temperature and poor ventilation produce drastic effect on performance. The experiment indicated decrease in level of productivity by 2% with increase of 1°C from 25°C to 32°C and no impact on productivity when temperature ranges between 21°C to 25°C.

Experiment conducted by Seppanen et al. (2006) also indicated that increase in temperature has strongest correlation with work performed in laboratories as there is requirement of intense focus on task.

Office Furniture

Productivity of employee has also been supplemented with office furniture and it is legitimate to believe elements like desk, chairs & drawers etc has ability to influence employee productivity (Sehgal, 2012). This impact found significant for countries like Pakistan, as employee spent significant time in close contact with office furniture (Akhtar et al., 2014), although there is minimal attention towards the impact endorsed by office furniture (Sehgal, 2012).

Therefore, legitimate to believe Ahmad et al. (2016), who declare office furniture as important element in fostering organizational productivity through optimizing the comfort level for employees. On the other hand, office furniture is also marked as third important most elements in the list of office design elements and hence must be treated carefully by management (Akhtar et al., 2014). Yusof et al. (2017) also indicated that non-ergonomics furniture might lead to increase of health issues and thus level of productivity declines. Thus management must pay concern towards ergonomics of office furniture at the time of purchase (Sehgal, 2012), as this is found to be effecting employee even when other elements of office design are absent or ineffective (Jaffri, 2015).

Office Equipment

Office equipment is defined as the sum of all devices which are required in office to perform required requirements (Sultan et al., 2016). Although the selection of office equipment is one of the most difficult tasks as the selection must be coherent with the preference of the person who is going to use these (Cullen, 2002). Similar found to be true through Mumuni and Sam (2014) that use of modern equipment in offices is directly associated with the performance although performance varies with respect to the knowledge of use and understanding from one employee to another.

Spatial Arrangement

Al-Omari and Okasheh (2017) indicated that office layout is considered as one of the most important measure to optimize level of productivity of employees. Moreover, lack of privacy in office setting might result in increase of stress in employees (Saha, 2016). Although office environment also requires proper interaction of employees in order to enhance sharing of knowledge and information (Haynes, Suckley & Nunnington, 2017). Although some of the tasks require complete absence of distraction and

thus it is optimal to believe office layout must be a hybrid of multiple types of design to deal effectively with the issue of privacy. This is valid not only to obsolete distraction but also to address the concern of privacy which varies person to person (Saha, 2016). These indications are also found valid through Al-Omari and Okasheh (2017) that in recent era there is a requirement better and effective ways to induce work through managing flexible work environment.

RESEARCH METHODOLOGY

Research Methodology is the set of parameters which are undertaken by researchers to highlight relationship among all the important aspects of their research (Brannick and Roche, 1997). Therefore, this study combines the parameters highlighted by Saunders, Lewis, Thornhill, and Wilson (2009), Saunders and Bezzina (2015) and Sekaran and Bougie (2016) with research gaps found in the area of office design from territories of Pakistan.

Research Design

The philosophy incorporated with the study is epistemology, as it is treated as philosophy of knowledge (Saunders, Lewis, & Thornhill, 2007). Other researchers like Bryman, Beker, and Sempik (2008), indicated epistemology as “As an issue concerns the question of what is (or should be) regarded as acceptable knowledge in a discipline” (p.13). The research stance for this study was post-positivism, as the study tries to combine variables, techniques, methods and data from different sources to challenge the existing knowledge (John & Gray, 2010). Research strategy incorporated is survey, method of data collection is mono-method (Saunders et al., 2007 Saunders & Bezzina, 2015) and purpose of study was correlational (Sekaran & Bougie, 2016).

Time horizon was cross-sectional (Saunders et al., 2015) and study setting was non-contrived in order to collect data through field-experiment with moderate researcher’s interference (Sekaran & Bougie, 2016). Furthermore, to comply with the reliability issues study follows Vimalanathan and Babu (2017) and works on descriptive statistics before analyzing results through inferential statistics. Proceeding further it has also been noticed that prior studies on office design uses software like SPSS and AMOS etc, but to associate properly with the theoretical framework this study incorporates SMART PLS. This has been done as seven variables of this study has never been tested by single study and

study also based on industrial analysis through incorporating data from major HEIs. Thus, legitimate to use SMART PLS to ensure the essence of theory building approach (Hwang, Malhotra, Kim & Tomiuk, 2010).

Sampling Design

In accordance with statement of problem the study has been conducted from HEI operating in Karachi, extensively focused upon impact of office design on faculty performance. Thus, the population for this study is entire list of faculty members (permanent), teaching in HEIs of Karachi. Moreover study also uses the reference of prior studies like Hameed and Amjad (2009), Riaz et al. (2017) and Sultan et al. (2016) to use simple random sampling. Although, tracing of adequate sample size was quite difficult as the study is focused towards theory building approach and faculty of higher educational institute is much difficult to trace (i.e. permanent faculty). Thus, to manage issue effectively study takes the reference of Parveen et al. (2012) to use sample of 150 faculty members of higher educational institutes offering degrees in management sciences. List of higher educational institutes from which data has been gathered are SZABIST, IoBM, KASBIT, PAF-Kiet and Dadabhoy etc. Although faculty has tough schedule, therefore, after taking consent data is collected through using Google docs which enable researchers to send questionnaire via email.

Questionnaire

The questionnaire has been developed in accordance with Hameed and Amjad (2009), as it is based on five points Likert scale to measure effect of office design on employee productivity.

The technique of data collection is supplemented with five points likert scale, followed by Riaz et al. (2017). Although unlike Riaz et al. (2017) this study focused intensively on office design on employee productivity rather than on employee productivity and employee health. The questionnaire also follows indications given by Amirazar Azarbayjani Day Thariyan Stearns and Brentrup (2017) and Parveen et al. (2012) etc.

STATISTICAL TESTING AND ANALYSIS

This section is based on gauging of results in order to show impact of variables (independent and moderating) on dependent variable. This section also includes detailed analysis of each table in order to provide proper understanding regarding concept which has been introduced throughout the paper. The section is based on analysis of descriptive models as well as inferential models. Descriptive analysis is made through

outer loadings (Table 1), Quality Criteria (Table 2), Composite Reliability (Table 3), Fornell and Larcker (1981) Citation (Table 4 & 5). Similarly, inferential statics are highlighted by (Figure 1 and Table 5)

Table 1: Outer Loading

	AV	EP	LI	MT	NO	OE	Office Equipment's* Supervisors Attitude & Leadership	OF	Spatial Arrangement* Supervisors Attitude & Leadership	SA	SAL
AV1	0.894										
AV2	0.969										
AV3	0.959										
EP1		0.896									
EP2		0.940									
EP3		0.901									
LI1			0.927								
LI2			0.802								
LI3			0.914								
MT1				0.892							
MT2				0.801							
MT3				0.816							
NO1					0.777						
NO2					0.887						
NO3					0.907						
OE1						0.892					
OE2						0.859					
OE3						0.727					
OF1								0.929			
OF2								0.894			
OF3								0.897			
OE* SAL							1.375				
SA1										0.904	
SA2										0.892	
SA3										0.771	
SAL1											0.893
SAL2											0.888
SAL3											0.749
SA* SAL									1.313		

Table 1 indicated that outer loading for each element (question) associated with different variables of study and all of these are more than 0.70. Therefore in the light of these values it is optimal to believe that each element is reliable for further statistical testing. These indications are supported by Hair Sarstedt Ringle and Mena (2012) that value of alpha (α) must be found greater than or equal to one. Moreover, Hair Jr, Hult,

Ringle and Sarstedt, (2016) that point having lesser than 0.7 values must be deleted if the delete is fruitful for overall reliability of the variable.

Table 2: Quality Criteria and Model Fit

	R Square	R Square Adjusted
Employee Performance	0.754	0.719

Table 2 indicated that value of R-Square is 0.754 and value of Adjusted R-Square is 0.719 which are sufficient enough to define model is majorly predicted by independent variables and there is minimal level of multi-collinearity in the variables. This is coherent with the analysis provided by Hair Sarstedt and Ringle (2011), that 0.75 is the value treated as substantial for R-Square as the value indicated predictive accuracy for the model (Henseler, Ringle & Sinkovics, 2009) Table 3 indicated that values of Cronbach's alpha are more than 0.70 for each variable and value of Dillion-Goldstein's rho is also more than 0.70 as well as values of Cronbach's alpha.

Table 3: Construct Reliability

	Cronbach's Alpha	rho A	Composite Reliability	Average Variance Extracted (AVE)
Air-Ventilation (AV)	0.935	0.936	0.959	0.886
Employee Performance (EP)	0.899	0.900	0.937	0.833
Lightening (LI)	0.856	0.858	0.913	0.779
Maintenance of Temperature (MT)	0.791	0.842	0.875	0.701
Noise (NO)	0.820	0.827	0.894	0.738
Office Equipment's (OE)	0.769	0.792	0.867	0.687
OE * SAL	1.000	1.000	1.000	1.000
Office Furniture (OF)	0.892	0.898	0.933	0.823
SA* SAL	1.000	1.000	1.000	1.000
Spatial Arrangements (SA)	0.818	0.831	0.893	0.736
Supervisors Attitude & Leadership (SAL)	0.801	0.833	0.882	0.716

Similarly values of AVE for all the variables shown through table 3 are more than 0.5, therefore it is legitimate to consider overall construct reliable enough for further statistical testing. In order to validate the analysis made for Table 3

it is important to link the analysis with the following illustration. Hussain Fangwei Siddiqi and Shabbir (2018) indicated that Cronbach’s alpha (α) & construct reliability are used to evaluate internal consistency while Dillon-Goldstein’s rho is more appropriate tool for the analysis of reliability than α & its value must be more than 0.70 (Ravand and Baghaei, 2016).

Similarly construct reliability is a better tool for the analysis of reliability than α (Hussain et al., 2018). Ab Hamid Sami and Sidek (2017) further indicated that value for AVE must be greater than or equal to 0.5 in order to validate construct validity.

Table 4 indicated that no value for any variables is relating with each other. This can be verified as there is no value which reaches 0.85 at the junction of two variables. (Alarcon, Sanchez, Olavide, 2015). These indication regarding parameters of HTMT are supported by Hair Jr et al. (2017) that values below 0.85 are appropriate enough to declare HTMT Ratio fit. Therefore, legitimate to declare model appropriate enough as highlighted by Hair Jr Sarstedt Ringle and Gudergan (2017) for testing as entire range of constructs are not correlating with each other.

Table 4: HTMT (Heterotrait-Monotrait Ratio)

	AV	EP	LI	MT	NO	OE	Office Equipment’s* Supervisors Attitude & Leadership	OF	SAL	SA	SAL
AV											
EP	0.513										
LI	0.322	0.449									
MT	0.550	0.758	0.534								
NO	0.561	0.606	0.679	0.633							
OE	0.526	0.637	0.654	0.614	0.629						
Office Equipment’s* Supervisors Attitude & Leadership	0.289	0.342	0.342	0.424	0.408	0.345					
OF	0.496	0.651	0.528	0.642	0.607	0.701	0.337				
Spatial Arrangement M Supervisors Attitude & Leadership	0.254	0.344	0.336	0.315	0.343	0.336	0.741	0.278			
SA	0.423	0.430	0.579	0.545	0.580	0.721	0.311	0.540	0.291		
SAL	0.512	0.670	0.577	0.678	0.659	0.720	0.467	0.659	0.350	0.526	

Table 5 indicating p-values for all the independent variables are lesser than 0.05 and values for all the variables are more than 1.97. Hence in the light of these parameters it is legitimate to indicate office design elements are creating significant impact on the performance of faculty members of HEIs of Karachi. These concluding remarks are coherent with Hair Jr et al. (2016), that in order to generate inference on the bases of t-values it is legitimate to highlight the relation between variables if t-value is more than 1.97. Although the negative sign in regression weights (Original Sample) of air ventilation and spatial arrangements indicated that these two variables are affecting employee performance negatively. Hence lack of indoor lightening and spatial arrangements (open offices) are producing negative impact on the performance level of faculty members of HEIs. Although the moderation (Supervisor's Negative Attitude and Leadership), is diminishing the impact of office equipment and spatial arrangements and making the impact of office equipment and spatial arrangement negative.

Table 5: Path-Coefficient and Total Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
AV → EP	0.074	0.437	0.056	2.604	0.037
LI → EP	-0.140	-0.130	0.071	1.984	0.048
MT → EP	0.384	0.383	0.072	5.329	0.000
NO → EP	0.189	0.177	0.089	2.113	0.035
OE → EP	0.134	0.130	0.059	2.271	0.024
OE* SAL → EP	0.094	0.090	0.048	1.940	0.053
OF → EP	0.179	0.184	0.064	2.814	0.005
SA* SL → EP	-0.067	-0.067	0.058	1.152	0.250
SA → EP	-0.128	-0.120	0.054	2.363	0.019
SAL → EP	0.167	0.170	0.078	2.144	0.033

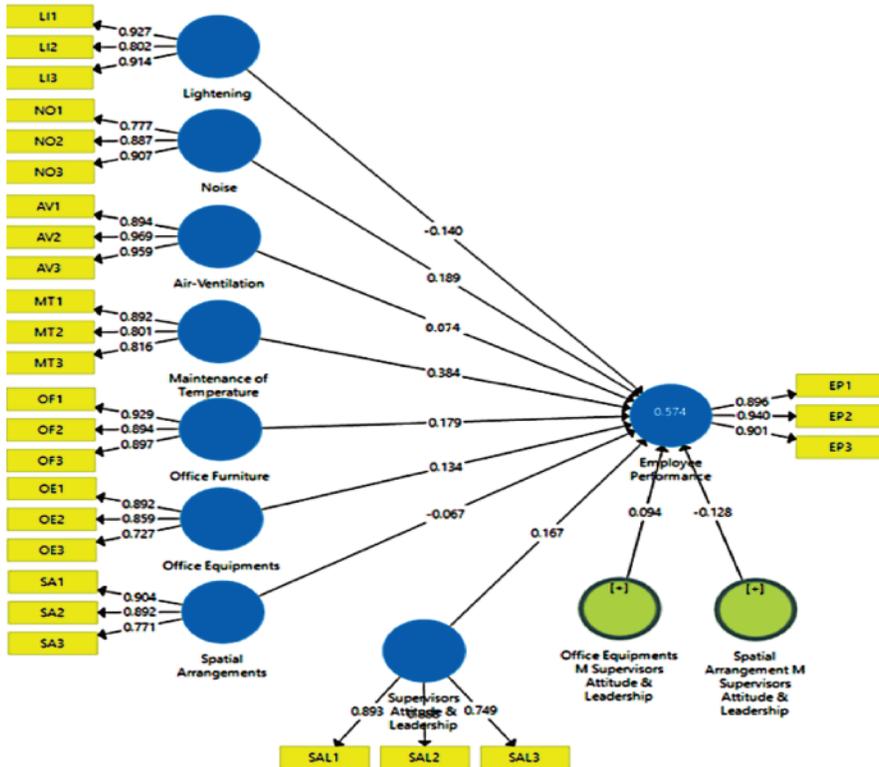


Figure 1: Outer Loadings and Regression weights for office design elements

CONCLUSION

Study indicated that there is a significant role of office design elements on the performance of faculty operating in higher educational institutes. All the potent variables from the construct of office design has been tested for the first time in territories of Pakistan and result are significant enough to declare these variables are potent in higher education sector of Pakistan. Results are completely coherent with Riaz et al. (2017) that there is positive impact of furniture, equipment, lightening, temperature and spatial arrangements on employee productivity. Results are also similar to the results of Hameed and Amjad (2009) which indicated noise; lightening; temperature; air quality and spatial arrangement all are creating significant impact on employee performance. One of the minor difference between this and Hameed and Amjad (2009) is the recent study indicated the positive impact of office furniture on employee performance of HEIs of Karachi. On the other side recent study is much unique in terms of results

from Jaffri (2015) which indicated there is no effect of any of the office design element except office furniture on the performance of employees.

Jaffri (2015) indicated that all the required elements of office design were absent from the office facilities available at NADRA and employees are performing work through using their own capacities, abilities and interests. Similarly, results are extensively changed in comparison to Sultan et al. (2016) which indicated that there is no effect of lightening, color, air-quality, spatial arrangements and noise on performance of employees. Therefore, results of paper are important mainly due to the following reasons on productivity of permanent faculty members of HEIs:

1. Entire range of variables are found to be significant on the performance of faculty
2. Moderation has been from variable inventory of work-environment and the results are found to be predominant, as moderator is able to change the impact yielded previously.
3. Last but not the least; results are important as these are highlighted through larger sample size which is reflecting the presentation of most of the HEIs operating in Karachi.

RECOMMENDATIONS& FUTURE AREAS FOR RESEARCH

After detailed analysis of data collected it has been recommended that HEIs must not only take care office ergonomics but consider politics and supervisor's attitude and leadership style.

This is legitimate to create optimal impact of facilities on performance of faculty moreover study also recommended that organizational justice might also incorporated as the moderating element in office design studies. This will aid researchers in determining role of distributive justice, procedural justice and interactional justice on the performance of faculty.

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STRATEGIES FOR MAKING CPEC INCLUSIVE FOR UNSKILLED WORKERS

Saira Ahmed*, Sajid Bashir**, and Vaqar Ahmed***

ABSTRACT

In the domain of the public-sector strategy prioritizing, very little work has been done bearing the psychology and behavior of the unskilled worker in the country. The employment of unskilled labour is under-represented in majority of the countries that dot the globe. Not surprisingly, documented statistical evidence of the World Bank Report 2015 confirmed that the unskilled labour force in these economies represented up to 50 to 65% of the informal and formal work force. Being a part of the undocumented workforce, it is difficult to measure the value-added contribution of this informal sector in Pakistan. Moreover the Special Economic Zones (SEZs) being planned and designed under CPEC will allow for increased participation and inclusion of the unskilled labour (only after relevant training) for those residing there and in the peripheries. In our exploratory field study that was conducted in two upcoming SEZs of Nowshera and Islamabad; we expose the economic and social flaws of the very foundations of labour markets in Pakistan. Hence, concluding that if policy-makers do not address the flaws urgently, the whole exercise of making SEZs will go in vain.

Keywords: Pakistan, CPEC, Special Economic Zones (SEZs), Unskilled Labour.

INTRODUCTION

The employment of unskilled labour is under-represented in majority of the countries that dot the globe. Not surprisingly, documented statistical evidence of the World Bank Report 2015 confirmed that the unskilled labour force in these economies represented up to 50% of the informal and formal work force. For example, in Latin America it was found to be 39.8%, where as in Uruguay 75% of the workers were involved in informal

*Assistant Professor, Faculty of Management Sciences, Capital University of Science & Technology, Islamabad

**HoD, Department of Business Studies, Namal Institute, Mianwali

***Joint Executive Director, Sustainable Development Policy Institute, Islamabad

work. Similarly, 24.3% females in Brazil represented the unskilled workforce, as compared to 58.3% in Honduras. Moving towards South East Asian Countries, excluding China, it was indicated that unskilled employment in all reported countries ranged from minimum 42.3% to a maximum of 83.6%.

In the case of Pakistan, as per the 2019 International Labour Organization (ILO) Report on Pakistan's Labour Policy, almost 22 million of the employed labor force is earning its livelihood in streets and the government has no record of it. This unskilled sector accounts for 43.3% of the total labor force (Amir, 2016). These informal workers can be categorized as self-employed, casual wage workers, family based petty traders, paid employees for informal enter prices, home based workers, street vendors, vehicle drivers, and casual agricultural and non-agricultural workers.

Being a part of the undocumented workforce, it is difficult to measure the value-added contribution of this informal sector in Pakistan. Moreover the special economic zones being planned and designed under CPEC will allow for increased participation and inclusion of the unskilled labour (only after relevant training) residing there and in the peripheries. Indirect estimation approaches on the basis of employment, and hours worked are being used to estimate the contribution unskilled workers, but they do not allow for documenting robust findings. Moreover, previous studies done by international donors signified that the contribution of unskilled labour accounts for nearly 30% of total income, and over 40% of total urban income. Consequently, it has been widely recognized that the contribution due to this to gross domestic product (GDP) is of prime significance.

Importance of Special Economic Zones in Poverty Alleviation and Economic Growth

Setting up Special Economic Zones (SEZs) is key to economic growth of any region via increased employment opportunity which not only positively impact GDP growth rate but also play a significant role in poverty alleviation. In 2017, SEZs of Dominican Republic has generated 166,000 direct and approximately 250,000 indirect jobs in the region, majority of which comprised of low-skilled workers. To fill the employment gap Government of Dominican Republic has signed agreements for skill development with Universities and institutions. Similarly, there are currently 500 SEZs in Latin America and the Caribbean region employing approximately 1 million people (United Nations, 2019).

The increase in employment opportunities is not just limited to these areas only, India has reported to generate 178,000 jobs from SEZs within 10 years of establishment of first SEZ (Aggarwal, 2007) and anticipated to have these number tripled and raised to approximately 15,75,452 by December 2009. This has created a need to invest more in filling these jobs by local people through skill development (Raheem, 2011).

However, in India since 2006 there have been observed 90% increase in employment opportunities. Total increase in employment rate is reported in 2008- 2009 is 3,87,439 whereas it raised to 13, 50, 071 in 2013- 2014. Besides already skilled workers, most of the labor employed was semi-skilled and un-skilled workers. This economic shift with the establishment of SEZs in India has greatly impacted GDP growth, alleviation of poverty and decreasing unemployment rate (Das, 2017).

The similar and better examples can be found in developing countries like China, where an increase of 10 million employment opportunities is reported from 2002 to 2006. In 2006 alone China has employed 40 million people in different SEZs (Agarwal, 2010).

Economic Stability and Human Development

The development of Human Resource for socio-economic stability is evident and human capital is considered the greater asset of a country. The human resource greatly impacts the development outcome of a nation (Castleman, 2016). Singapore has practically implied this philosophy of Human development and reap its benefits as world 1st biggest competitive economy with the score of 84.5% leaving behind US besides having limited natural resources and a smaller area (World Economic Forum, 2019). Back in 1996, Singapore plan ahead to reach this stage by signing agreements and investing in Human skill development. Even with very limited human resource and outsourcing it from other countries still Singapore managed to sustain its position as biggest emerging world economy in the presence of other developing economies like US and Europe. The competition was not low but planning ahead has paid off.

CPEC and Inclusion of Unskilled Labor

China Pakistan Economic Corridor (CPEC) is bringing these opportunities of economic growth to Pakistan. Reaping its benefits is greatly dependent upon effective policy making in mobilizing and developing human resource. Unfortunately, as reported in World Bank 2015 Annual report, Pakistan has

disappointed international donors with miserable performance in human development area. CPEC is opening new doors of economic growth for Pakistan, by keeping in view the human potential Pakistan currently hold with 64% of young people age between 25-30 years, the greatest number ever in its history (United Nations Development Programme, 2018). Besides up gradation of skilled workers, the reported 43.3% of unskilled-labor force can play a huge role in economic growth of Pakistan if invested and skilled well in time.

A number of studies have been undertaken to study several aspects of the unskilled labour in Pakistan. However with the advent of the China Pakistan Economic Corridor (CPEC), we have a special opportunity to see the potential benefits. There is a dire need to study this issue in order to firstly assess the awareness that unskilled workers have about CPEC and Pakistan's new foreign and trade relations in this regard. Existing studies empirically examined various aspects of unskilled labour sector such as; skill development, constraints on the growth, wage rates, embracing capital-intensity, and labor productivity. A considerable vacuum in the line of these studies is that they were based on a very small sample including urban locations only, thus their results could not be generalized via representative sampling. Representative sampling will allow for a fresh and apt comparison between urban and rural areas because we will be selecting the Special Economic Zone of the capital territory of Islamabad and the Rashakai Economic Zone, M-1, Nowshera. The reason for choosing these is essentially the ultimate urban-rural mix of these relatively better technology-literate cities.

It is also important to note that as per the Dawn newspaper of 13th March 2017, it is very essential that communities at the grassroots be involved in this massive growth initiative to set-up Special Economic Zones (SEZs) otherwise one tends to generate hostility of the masses.

At the moment, unskilled labour (mostly informal workers) is hardly able to access social protection and social welfare in Pakistan. However, once part of the formal labour force of the Special Economic Zones (SEZs), the unskilled labour-force will be able to access both. Hence our priori expectation is that the social impact of CPEC will be very positive.

Research Questions

In this study we pose the following questions:

1. What is the estimated size of unskilled labour in the regions mentioned above?

2. Identify the skill gap of this labour vis-à-vis expected demand in SEZs
3. Which specific training interventions would be required to enable this currently unskilled labour to ensure inclusion in to SEZs from the grass root level?

The precise expected research outcomes of this policy study are as follows:

1. Demonstrate the career-enhancing socio-economic characteristics of unskilled labour force under CPEC.
2. Via exploratory study, give insight to the factors which influence these labourers to work mostly in informal sectors and their potential contribution to the federal and provincial tax-net once they become part of the formal labour force.

METHODOLOGY

A total of 250 respondents participated in this open interview study. Seventeen respondents belonged to the Federal State (Islamabad). Respondents primarily belonged to the province of Punjab, from Khyber Pakhtunkhawa, and a few respondents were from Sindh, Azad Kashmir, and Gilgit Baltistan. At the 30th interview data reached saturating, and themes started repeating, thus stopped conducting interviews. The respondents who participated in this exploratory study were presented according to; gender, age group, religion, education, job occupation, and province. A complete descriptive demographic, and geographic data of respondents was summarized in Table 1.

A large part of our findings includes the discussion around current skills gap, investment for acquiring skills as per future demand will be addressed through open ended questions posed to current and potential employer organizations in the above mentioned regions.

We may also consider other variables after carefully looking at the recent literature on labour market impact of public investment.

The questionnaire will undergo a pilot and before being fully implemented on-site. Responses from the team will be validated through random on-site visits. The survey link will also be shared with the employers of the sample workers. Henceforth, cross-sectional wage

function shall be estimated which shall explain the interesting determinants.

RESULTS

This section discussed results on; initial inquiry, managerial implications, and implications for government policy making in light of “CPEC Inclusive for Unskilled Labor Force in Pakistan”. The actual results obtained were based on open interview session, conducted with each of the respondent on a one-to-one basis in this exploratory endeavor.

OBJECTIVITY AND RELIABILITY

Being an exploratory study, it pertains to human involvement and interpretations. Keeping this in view, the researchers focused on objectivity, as a fundamental component of analysis. This was concerned with the overall quality of the coding process of complex data especially that received from open interview responses.

Hence, systematic procedures using MAXQDA 12 for organizing data, and interpreting themes were adopted. Transcripts were manually coded using spread sheet method, and were planned and implemented at the outset. This ensured accurate and consistent coding behavior across the coders. This also helped in reducing personal bias in this study.

Table 1: Demographic and Geographic Summary of Respondents

Major Segmentation Variables	Category	Frequency	Percentage %
Geographic			
Region	Federal Capital	1707	56,7%
	Punjab	03	23.4%
	Nowshera	01	10.0%
	Sindh	01	03.3%
	Gilgit Baltistan	01	03.3%
	Azad Kashmir		03.3%
Demographic			
Gender	Male	18	60%
	Female	12	40%
Age	35-40	18	60.0%
	40-45	07	23.4%
	45-50	04	13.3%
	50-60	01	03.3%
Education	Bachelors	09	30%
	Masters	21	70%
	Doctor		

Job/Occupation	Private Sector	22	73.3%
	Government Sector	08	26.7%
	Own Business		
	Others		

Source: Developed from the Qualitative Field Report.

Coding

A four step manual process was used for coding the spread sheet. At first, all the 30 interviews were transcribed on a separate sheet. At second, each segment of text which ended with a full stop, and a segment of text which had a comma in between was treated as a single cognitive unit. At third, each sentence starting from left to right was numbered separately. At fourth, each page was given a separate page number. Table 2 established the criteria for coding the spread sheet manually.

Table 2: Criteria for Coding the Spread Sheet

Interviews (I)	All the 30 interviews would be coded separately.
Unit (U)	A segment of text which ends with a full stop, and a segment of text which has a comma in between is treated as a single cognitive unit.
Lines (L)	Each sentence written from left to right would be numbered separately.
Pages (P)	Each page would be given a separate page number.

The analysis for this qualitative endeavor was designed to search for emerging themes, within the segmented interview transcriptions. Six hundred and twenty seven (627) units of raw texts were identified using the manual spread sheet method. These six hundred and twenty seven (627) units of raw themes were coded in to forty (40) groups of coding/themes called theme list. The overall emerging groups of coding themes for “Making CPEC Inclusive for Unskilled Labor Force in Pakistan” are presented in Appendix A.

As presented in Appendix A, the entire seven hundred and twenty eight (728) units of raw text were coded using the criteria in Table 2. All of these themes were categorized into clusters. A brief summary of several interviews conducted is presented in the following paragraphs:

When asked about the reason for unskilled labor in Islamabad, and Rashakai Economic Zone M1, Nowshera, chosen interviewees responded as follows;

“The main reason is poverty”.

(Interviewee 01, Federal State, age 37)

“Lack of training provided to the labor”.

(Interviewee 03, Punjab, age 35)

“One of the main reasons is lack of education”.

(Interviewee 04, Sindh, age 38)

When asked about the impact on labor force of CPEC, chosen interviewees responded as follows;

“Unskilled labor force would be hired on low wages”.

(Interviewee 07, Federal State, age 42)

“No plan for decent wages introduced, due to lack of policies”.

(Interviewee 13, Azad Kashmir, age 39)

“Due to massive unemployment labor will be hired on a very low daily wages”.

(Interviewee 19, Federal State, age 40)

“Due to CPEC development, and in majority low labor literacy rate would lead to hiring labor below minimum wages”.

(Interviewee 23, Punjab, age 36 years)

Furthermore, these interviewees also discussed some reasons for how these unskilled labor can become a part of SEZ's, which are as follows;

“Unskilled labor will become a part by providing them a good environment”.

(Interviewee 25, Federal State, age 39)

“Another reason is that, it will reduce the poverty level. Would get opportunity for providing them trainings”.

(Interviewee 27, Gilgit Baltistan, age 45)

“Raise the awareness regarding the strategic nature of CPEC, the labor policies and regulations”.

(Interviewee 28, Nowshera, age 60)

“Provide them trainings and workshops, and basic level certifications”.

(Interviewee 30, Nowshera, age 49 years)

Forty (40) new raw themes were predicted using the manual coding method. Table 3 discussed the details on established raw themes.

Table 3: Raw Themes

No.	Theme	Frequency	%
001	Belong to Poor Backgrounds.	4	10%
002	Minimal Government Involvement.	1	2.5%
003	Lack of Education.	1	2.5%
004	Unattractive Remuneration Package.	2	5%
005	Lack of Non-Financial Incentives.	1	2.5%
006	Large Scale Unemployment.	1	2.5%
007	Lack of Opportunities.	1	2.5%
008	Hiring on Minimum Wages.	3	7.5%
009	Capacity Building Programs.	1	2.5%
010	Unclear Policies. (Especially about BISP)	1	2.5%
011	Minimum Wage Incentive.	1	2.5%
012	Non-Financial Allowances.	1	2.5%
013	Health Insurance.	1	2.5%
014	Job Security.	3	7.5%
015	Skilled Level Training Programs.	4	10%
016	Introduce Poly Technical Colleges.	1	2.5%
017	Conduct Workshops.	1	2.5%
018	Employee Awareness Programs.	1	2.5%
019	Motivation Workshops.	1	2.5%
020	Fair Reward System.	1	2.5%
021	Facilitate Workers.	1	2.5%
022	Labor Advisory Group.	2	5%
023	Safe and Healthy Environment.	1	2.5%
024	Consider Labor Concerns.	1	2.5%
025	Regular Briefings on Policies.	1	2.5%
026	Build a Welfare Program for Labor.	1	2.5%
027	Proper Engagement Plan.	3	7.5%
028	Lack of Direction for Labor Force.	1	2.5%
029	Financial Aid Programs.	1	2.5%
030	T.A/D.A for Labor.	1	2.5%
031	Campaign of Benefits for Skilled Labor Force.	2	5%
032	Labor Certification Programs.	1	2.5%
033	Self-Development Programs.	1	2.5%
034	Technical Training Courses.	3	7.5%
035	Collaborate with NGO's.	1	2.5%
036	Personal Interaction with Individuals.	1	2.5%
037	Provide Appropriate Working Environment.	1	2.5%
038	Offer Diplomas in Engineering Fields.	1	2.5%
039	Over Time Bonuses.	1	2.5%
040	Provide Accommodation.	1	2.5%

While analyzing Table 3 established on raw themes for “*Making CPEC Inclusive for Unskilled Labor Force in Pakistan*” it was identified that, out of 30 respondents, 4 respondents each mutually agreed and emphasized that, individuals not working for skilled labor were from poorer back grounds, thus needed skilled level training programs. 3 respondents each gave high weightage to themes such as; hiring on minimum wages, job security issues, proper engagement plan, and technical training courses.

2 respondents’ views were directed towards unattractive remuneration packages, whereas 2 emphasized the significance of labor advisory group. In comparison, 2 gave high weightage to conducting a campaign highlighting the benefits of skilled labor force. The remaining 14 respondents came up with themes such as; minimal government involvement, lack of education, non-financial incentives, large scale unemployment, lack of opportunities, unclear policies, unclear wage incentive, minimal health insurance, lack of labor awareness programs, fair reward system, safe and healthy environment, labor certification programs, self-development programs, overtime bonuses, and accommodation issues.

However, while viewing the forty (40) established themes in Table 3 it was also observed that, majority of the themes were overlapping. Therefore, further analysis was conducted by the researcher to merge these themes into more clear, and established domains in accordance with the field of economics. While doing so, 6 broader themes were identified. Table 4 presented the emerging themes in 6 clusters. The next section would discuss the managerial implications for this study.

Table 4: Emerging Themes

No	Cluster Wise Themes
Theme 1	Basic Necessity of Life Issues.
001	Belong to Poor Backgrounds.
002	Lack of Education.
Theme 2	Minimal Government Support.
003	Large scale unemployment.
004	Lack of Opportunities.
005	Unclear Policies.
Theme 3	Capacity Building Programs.
006	Introduce Poly Technical Colleges.

007	Conduct Workshops.
008	Technical Training Courses.
009	Offer diploma in engineering fields.
010	Regular briefing on policies.
Theme 4	Safe and Healthy Work Environment.
011	Health insurance.
012	Providing accommodations.
013	Employee Awareness Programs.
Theme 5	Remuneration Package.
014	Over time bonuses.
015	T.A/D.A for labor.
016	Build a welfare program for labor.
017	Non-financial benefits.
018	Fair reward system.
Theme 6	Motivation Exercises.
019	Provide appropriate work environment.
020	Personal interaction with individuals.
021	Initiating self-development programs.
022	Job Security.

Managerial Implications

The managerial implications for this study are discussed keeping in view Table 4. Provision of basic necessities of life, sufficient government support, capacity building programs, safe and healthy work environment, remuneration packages, and motivation exercises have a favorable impact towards making CPEC inclusive for unskilled labor force in Pakistan. Furthermore, all the six predicted themes were related to acquiring, and exhibiting a prosperous work culture. Therefore, it is necessary for CPEC to develop and implement strategies which would reduce the unethical and long-standing work practices prevailing in the industrial sector of Pakistan. Furthermore, the industrial sector while promoting these six predicted themes must emphasize on these highlighted issues as a medium for satisfying labor internal motives such as; self-respect and self-esteem. CPEC must underplay the long-term benefits associated with labor force.

In a similar vein, a second long term industrial strategy could be that, genuine production and manufacturing business owners start offering a

safe and healthy work environment, with favorable remuneration packages. This would create an environment of competition amongst major players in the manufacturing and production industry. Subsequently, leading to building a skilled labor force, and would reduce the demand of unskilled labor in Pakistan. This strategy has been successfully imbedded in countries such as; Malaysia, Singapore, Indonesia, and China. Another spillover advantage of this strategy would be that, it would protect the rights of skilled labor force in Pakistan, in comparison to the prevailing undefined labor working environment. The next section would discuss the implications for policy making.

Implications for Policy

The following implications for policy making were suggested:

It was found in this study that, individuals in Pakistan classed as labors had mixed feelings on working as a part of labor force in production and manufacturing industries. Reasons for such an attitude were the absence of defined labor policies. Also, generally the labor force was not fully aware about the benefits of working as a skilled individual. The policy makers in this context should arrange programs and seminars on benefits of skilled labor force, using electronic media for the general public, in educational institutions and other forums. These programs and seminar would help in creating awareness about the greater benefits of working as a skilled labor force, hence changing their attitude towards negative industry practices.

Habits and attitudes developed at early age do not change at adulthood. Therefore the policy makers should also target Kindergarten and primary schools children in attitude formation programs. As a consequence, these children at adulthood would have a positive attitude towards labor work practices, and hence they would be reluctant to indulge in negative and unfair work circles.

It may also be pointed out that besides manufacturers, policy makers are equally responsible for unfair, and unethical work practices. Therefore the government enforcing regulations should not be restricted to prosecuting the manufacturers, but their horizon should be expanded to the law setting, and reinforcing institutions as well. Subsequently, the policy makers should explicitly communicate to the public the consequences of indulging in informal and unethical work practices. For

this purpose, they should use mass media and all other possible sources. Thought provoking advertisements such as individuals being caught and jailed, and family members cutting sorry figure towards the family would also act as deterrent in promoting skilled labor force practices. It may be pointed out that, similar thought provoking advertisements are shown in Pakistan in the context of electricity stealing.

In an eastern, and Islamic country like Pakistan, it was expected, that themes such as basic necessities of life, minimal government support, capacity building programs, safe and healthy work environment, remuneration packages, and motivation exercises have positive attitude towards making CPEC inclusive for unskilled labor force in Pakistan successful. This really poses a challenge to the policy makers. Due to the availability of unskilled informal labor force in Pakistan, individuals don't possess the required skills to meet the 21st century challenges in the field of technology, and innovation. A majority of the workers earned their livelihood outside the economic cycle. The policy makers in this context could appoint appropriate spokesmen for communicating to the masses that, indulging in informal labor practices had a negative impact on the economic growth of Pakistan (Asif, 2011). The same messages could also be part of Friday Sermon by these Islamic Clerics.

The above discussed strategies would be expensive. In developing economies like Pakistan, funding for such programs would always be a major issue. Therefore, a special fund for these activities could be created. Since, all the major manufacturers in Pakistan lose towards these unethical practices, therefore these major companies should contribute toward this suggested fund.

LIMITATIONS AND FUTURE RESEARCH

This exploratory study has several limitations and opportunities for future research. To start with, the study has mainly focused on labor force in Federal State (Islamabad), few provinces of Punjab, Nowshera, Sindh, Azad Kashmir, and Gilgit Baltistan. Future studies could explore other rural areas of Pakistan as well. Since it was also found that unskilled labor force practices vary from one country to the other. Therefore, a comparative study of two or more countries would bring further insight in understanding how to engage unskilled labor force in country wide projects. This study has measured the views of employees working in government offices. Since it was also found that, the views vary between

government and private employees, future research could incorporate more than one category of employees.

Appendix A Actual Coding Sheet;

Coder 1 Interviewee (1-8)

Codes: Part. = Participant or Interviewee

P= page, L= line(s)

Theme No	Themes	Part. 1	Part. 2	Part. 3	Part. 4	Part. 5	Part. 6	Part. 7	Part. 8
001	Belong to Poor Backgrounds.	L1, P 1	L16, P3			L 91, P10	L97, P11		
002	Minimal Government Involvement.	L 1, P1							
003	Lack of Education.	L2, P1							
004	Unattractive Remuneration Package.			L 35, P5		L92, P10			
005	Lack of Non-Financial Incentives.			L 39, P5					
006	Large Scale Unemployment.				L64, P7				
007	Lack of Opportunities.				L76, P9				
008	Hiring on minimum wages.				L 79, P9		L96, P12	L111, P14	
009	Capacity Building Programs.							L112, P14	
010	UnclearPolicies.							L 128, P14	
011	Minimum Wage Incentive.								L160, P16
012	Non-Financial Allowances.								L161, P16
013	Health Insurance.							L 129, P14	

Coder 1 Interviewee (9-16)

Codes: Part. = Participant or Interviewee

P= page, L= line(s)

Theme No	Themes	Part. 9	Part. 10	Part. 11	Part. 12	Part. 13	Part. 14	Part. 15	Part. 16
014	Job Security.	L176, P18		L295, P26			L323, P28		
015	Skilled Level Training Programs.	L188, P18				L318, P27	L324, P28	L343, P29	
016	Introduce Poly Technical Colleges.		L225, P20						
017	Conduct Workshops.			L296, P26					
018	Employee Awareness Programs.			L 308, P26					
019	Motivation Workshops.				L333, P28				
020	Fair Reward System.				L 334, P28				
021	Facilitate Workers.					L319, P27			
022	Labor Advisory Group.					L 321, P27	L325, P28		
023	Safe and Healthy Environment.								L 364, P30
024	Consider Labor Concerns.							L344, P29	
025	Regular Briefings on Policies.							L347, P29	
026	Build a Welfare Program for Labor.							L353, P29	

Coder 1 Interviewee (17-24)

Codes: Part. = Participant or Interviewee

P= page, L= line(s)

Theme No	Themes	Part. 17	Part. 18	Part. 19	Part. 20	Part. 21	Part. 22	Part. 23	Part. 24
027	Proper Engagement Plan.	L379, P32					L467, P41	L504, P43	
028	Lack of Direction for Labor Force.	L381, P32							
029	Financial Aid Programs.		L399, P34						
030	T.A/D.A for Labor.			L405, P34					
031	Campaign of Benefits for Skilled Labor Force.				L447, P38		L476, P41		
032	Time to Time Certification for Labor.				L449, P38				
033	Self-Development Programs.					L457, P39			
034	Technical Training Courses.	L342, P32		L405, P34		L459, P39			
035	Collaborate with NGO's for Training sponsorships.						L475, P41		
036	Personal Interaction with Individuals.						L480, P41		
037	Provide Appropriate Working Environment.							L504, P43	
038	Offer Diplomas in Engineering Fields.							L504, P43	
039	Over Time Bonuses.								L538, P45
040	Provide Accommodation.								L539, P45

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DOES PROCEDURAL JUSTICE LEADS TOWARDS THE FEELINGS OF COMPLIANCE, AND COOPERATION WITH, AND EMPOWERMENT OF LAW ENFORCEMENT AGENCIES IN PAKISTAN: THE MEDIATING ROLE OF MORAL SOLIDARITY BETWEEN POLICE AND COMMUNITY

Sufian Fazal Khan* and Dr. Danish Ahmed Siddiqui**

ABSTRACT

This paper aims to identify why or why not the police get support and cooperation from the public. Relational models of authority argue that people measure the degree at which the police consider the moral values of groups by examining the equity of the processes they utilize to practice their authority. Additionally, according to the approach of social identity, the cooperation of the people along with the dept. of police is encouraged in component by their decision that the police are archetypal representative of the moral values of the groups. Combining both approaches in a single theoretical framework, we applied Sunshine & Tyler's (2003) model, on citizens' feelings about Pakistani Law enforcement agencies (LEA). In this, we hypothesized that procedural justice aligned police and citizen moral values in form of moral solidarity. This moral solidarity in turn effect LEA's effectiveness through increased cooperation from citizens as their feelings of Compliance and Cooperation with LEAs increased along with the people's will to give power to them. Practical cogency and was developed by carrying out a review and survey by using a close-ended questionnaire. For analysis Research Data was gathered from 296 citizens of Karachi and examined by utilizing CFA (confirmatory factor analysis) and SEM (structured equation modeling). The research has

*Research Scholar, Karachi University Business School, University of Karachi, Pakistan. sufianfazal@gmail.com

**Associate Professor, Karachi University Business School, University of Karachi, Pakistan

utilized a non-probability purposive sampling technique while data was analyzed employing PLS-SEM by utilizing the Smart PLS version 3.2.8. The findings of the research showed that moral solidarity has a positive significant effect on orientation towards policing, whereas the law of procedure has a major decisive effect on moral solidarity and orientation towards policing. Moreover, moral solidarity has a complementary mediating impact among the law of procedure and orientation towards policing. Findings also showed that moral solidarity alone as well as along with Orientation towards Policing seems to have a major and decisive mediation in the impact of justice, cooperation, and empowerment. Community policing encourages that, instead of the incident-oriented method that has continued to dominate in tandem with the professional model, the problem-solving attitude of police be embraced.

Keywords: *Moral Solidarity, Procedural Justice, Orientation towards Policing, Mediation Analysis, PLS-SEM.*

INTRODUCTION

The maintenance and management of the social order are undoubtedly one of the major functions of the legal authorities (Sunshine & Tyler, 2003). However, there are certain limitations to the management of this social order and thus it does not succeed to reflect on the full motivational array that expects to develop reactions of people on social authorities. The researchers have more focus on the judgments of people based on identity (Bradford, 2016) and also on their belief regarding social justice (Bradford & Creutzfeldt, 2018).

According to the sociological theorists, people evaluate the penal law or criminal agents like the courts and police based on the communities according to the level to which the community moral values are represented by them and how much they show these values in their actions and in giving punishments to the guilty one (Jackson & Gau, 2016). The punishment to the guilty one is considered to be an important element because when certain violations remain unpunished in a society, it generates the authority of the moral structures to shape the behavior of social members. When the group norms are violated,

the identity of that group gets damaged and this raised a question among the group members regarding the group status and their values too. The legal authorities are those that safeguard their moral values. They give certain punishments to the guilty one and thus it is expected that they would get their community's support too (Maxwell, Moore, Fontaine, & Smith, 2019).

There has been consistent research that claims that the followers more willingly accept their leaders' decisions and they support these leaders when these followers know that the leaders make decisions about them in a fair way (Ottu & Okurame, 2016). These findings have shown that procedural fairness is necessary for leaders (Pehrson, Devaney, Bryan, & Blaylock, 2017).

Moreover, as stated by Kochel, Parks, and Mastrofski (2013), the public has faith regarding the visions and productivity of the department of police, and specifically, the capability to capture and penalize the culprit was the main cause for addressing the violations and misdeeds to the department of police. Furthermore, several people don't endorse the department of police for the reason of their lacking efforts towards protecting the fundamental assets and rights of the public. So these, fundamental causes could direct the public towards mistrusting and disbelieving and lower stage of support and the observance to the department of police (Ullah & Ibrar, 2019).

The term strategy and policy relates to a team of individuals who establish enforcement of the law in the community by enhancing and conducting to their finest capabilities that are defined as the first replier towards any disorder from the public. Likewise, it has been declared that no department could give service and facilities in the absence of the support and assistance from the majority of the people (Ullah & Ibrar, 2019). For example, Ullah, Hussain, Alam, and Akhunzada (2016) highlighted that the back and assistance of the department of police is essential to preserve and retain support and acquiescence and maintain law enforcement at the peak level. There were numerous issues in the state of Pakistan and along with the absence of governance and there are suchlike intense issues that could cripple the entire arrangement and system. By way of illustration, the main issue in the department of police in the state of Pakistan is that police could not give primary defenses to the individuals and public, however, the department of police could aren't

very much efficient in providing sufficient construct to give and holds the system of law enforcement (Siddiqi, Butt, & Afzaal, 2014).

A police department in the state of Pakistan has been confronting various issues in the rouse of various acts of terrorism such as the absence of refuges and wealth and education and training and insufficient machinery. The ratio of offenses and criminal acts has bounced in the last ten years and enforcement of law being appeared to be disassembled as the department of Police doesn't have advanced technical equipment and the essential and necessary expertise and abilities as well (Abbas, 2004; Ullah & Ibrar, 2019). Besides, Abbas (2004); Ullah and Ibrar (2019) declared that the effectiveness of the police department has been considered as deterioration every day and has been presented as below to the needed mark.

The review based on the theory of procedural justice, specifically within-group involvement paradigm shape. Blader and Tyler (2009); Tyler and Blader (2000, 2003), recognizes that procedures of societal individuality are a major intellectual mediator among ideas and visions of the fairness of procedures, supporting the dept. of police and respect and loyal with the rule and regulation (Tyler, 1990, 2006; Tyler, Goff, & MacCoun, 2015). Henceforth, the current study had aimed to examine the effects of procedural justice towards moral solidarity and orientation towards policing which further effects empowerment, compliance, and cooperation.

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Social Identity Theory

In collaborating the hypothesis and idea, H. E. Tajfel (1978) (in cooperation with their students which are graduate John Turner) claimed that reciprocities of human scopes on exchequer from being merely inter-individual in the view of this to merely inter-cluster on the other (Tajfel & Turner, 1979). Simply inter-individual reciprocities (which Turner and Tajfel considered to be unusual) engages public associating in which the public associate totally as delegates of their groups, as well as where someone's peculiar and personal features are swamped through the saliency of the membership of one group (Tajfel & Turner, 1979). It was claimed in the research that gliding forms the inter-individual to the inter-cluster end of the range outcomes within modifications in how the public

watch one another and themselves. Illustrating the work regarding the cognition of the society Tajfel and Wilkes (1963), Tajfel claimed that the simple procedure of creating prominent ‘we and them’ disparities variates the way public watch one another. When differences in classes are prominent, public noticeably increases similarities inside the group (almost similar) and increase disparities between the group (distinct from others) (Hogg, Terry, & White, 1995). Classes merely variate the way public watch themselves, in the vision that it enables a various stage of someone’s personal idea.

Self-Categorization Theory

The theory of social identity claimed that linkages of the workgroup were controlled by the cooperation of cerebral, inspirational as well as socially historical observations. Turner and other working employees desired to intricate and improve the cerebral factor of the specific theory (Hogg & Terry, 2000). Thereby, they intended to take over the workgroup emphasis on the theory of social identity and to remark on to the procedures of intragroup as well (Turner & Reynolds, 2011). By the theory of societal categorization (incorporating self-classes) happen as an operation of both fit and availability (Oakes, 1987; Oakes, Turner, & Haslam, 1991). Fit relates to the scope to which societal classes are discerned to reflect and consider the reality of society; that’s the scope to which they are viewed to be indicative of variances of the actual world (Turner & Reynolds, 2011). Personals could discern a huge stage of fit if the class difference optimizes discerned inter-class variations and reduces within-class differences (comparable fit). This specific precept -judged to as target contrast proportion- certainly owes a highbrow liability to classical art on classification, in the context that it claims that classes make in a specific pattern that enhances commonalities of an intraclass and variances of an interclass (Trepte & Loy, 2017).

Moral Solidarity and Orientation towards Learning

Sunshine and Tyler (2003) aimed to demonstrate that the individuals’ cooperation with the department of police is encouraged as the police are the prototypes of representing the value of the teams’ morale. It also showed that people assess the level at which the police show the values of teams’ morale by the relationship model of command are found to engage, people who are not sure about their status in the team are found to be more powerfully disturbed about the problems of procedural justice than about the problems of distributive justice (Pehrson et al., 2017).

Moreover, Ottu and Okurame (2016) found that the covariance analysis suggested that being morally solid and how justice was perceived were significantly associated and explaining the collaboration to fight terrorism. But it was found that the social identity was not found to have a significant association with the support of the citizens in fighting terror and crime. The findings also concluded that there was no variation in gender in support of the citizen to fight terror and crime (Murphy, Cramer, Waymire, & Barkworth, 2018).

H1. Moral solidarity has a significant effect on orientation towards policing.

Procedural Justice and Moral Solidarity

Bradford and Creutzfeldt (2018) found that there was a significant relationship among perception of procedural justice and result like a whole perception of equity, the reliability and credibility of service of the ombudsman as well as accepting the decisions. However, it was also found that the relationships are widely indifferent in the countries of the UK and Germany, however, irrespective of this, all factors constant, participants from Germany showed more compatibly more positive views (Jackson & Gau, 2016). The data also added a fine distinction to the present studies on procedural justice and recommends that the domestic circumstances play a significant part. It is recommended that the domestic culture of justice provides toward a model of regulation that escorts the perception of individuals' and behavior injustice, quasi-justice as well as the associated environment, whereas, Radburn, Stott, Bradford, and Robinson (2018) found that the reason as to how the perception of the respondents about the activities of police was impacted by the social categories in a dramatic manner as well as that the relational identity of the police was mediating the association among the intention of cooperating with the police and the judgment of procedural fairness instead of the category of superordinate. The second experiment repeated and widened the results by illustrating how the procedural fairness perceptions were significantly impacted by stages of the identity of the in team demonstrating (Maxwell et al., 2019).

H2. Procedural justice has a significant effect on moral solidarity.

Procedural Justice and Orientation towards Policing

In the first place, verifiable inside many ebbs and flow examine is the possibility that procedural justice is a general and ontological

antecedent to social distinguishing proof, some way or another unmistakable from the dynamic social settings inside which those decisions are made (Lipponen, Wisse, & Perälä, 2011). PJT explore is introduced on the possibility that individuals discover the police pretty much reasonable relying upon how officials act, however, the relevant edge against which these decisions are made shows up, certainly in any event, as comprehensively consistent (Pósch, 2020). As Waddington, Williams, Wright, and Newburn (2015) put it there is a basic presumption of “a rational unitary, open standard of what is adequate and palatable in police lead”. Interestingly, Haslam, Reicher, and Platow (2010) contend that rules administering Justice are not all-inclusive but rather relative in that they can be fundamentally adjusted as an outcome of gathering enrollment with the end goal (Bradford, Murphy, & Jackson, 2014).

Conversely, those whose status is high and secure should put more weight on issues of distributive equity. Further, socially minimal individuals will be less worried about the status because their low status is clear; they additionally will concentrate on distributive equity (Tyler & Lind, 1990). This hypothesis has been developed based onprocedural justice theory (PJT) which identifies that police do make actualize legal environment and tries to make people believe by their actions towards their legal or legitimize positive values with the relationship of assistance and compliance of the people so that it increases the orientation towards policing (Gangl, 2003; Murphy, Sargeant, & Cherney, 2015). Hence, with the above-mentioned reasons, the study has hypothesized that:

H3. Procedural justice has a significant effect on orientation towards policing.

Procedural Justice, Moral Solidarity, and Orientation Towards Policing

For quite a long time, the examination has considered the subject of what makes legitimate procedures fair and satisfactory to those included. Two particular segments are usually recognized. First, there are result related concerns. On this record, individuals who have been engaged with a legitimate procedure or strategy ask themselves “did I get the result I needed” (result favorability) and additionally “do I think I got a similar result as others in my circumstance” (impression of equivalent treatment) (Sunshine & Tyler, 2003). On the off chance that the responses to these

inquiries are sure they are probably going to feel that the procedure concerned was itself fair and proper; be happy with both it and the leader; be eager to acknowledge the choice came to; and be bound to comply with the (future) guidelines of the position figure and the direction towards the policing with the incorporation of moral solidarity (Durkheim, 1986). This hypothesis has been developed based on procedural justice theory (PJT) which states that people only believe towards police when people have got their desired and deserved share of justices and it creates a sense of harmony and solidarity among the group which as a result eventually increases their orientation towards police (Gangl, 2003; Murphy et al., 2015). Hence, with the above-mentioned reasons, the study has hypothesized that:

H4. Procedural justice has a significant effect on orientation towards policing with the mediating effect of moral solidarity.

Orientation Towards Policing and Empowerment

Empowerment is a series of steps intended to improve the degree of autonomy and self-determination in persons and societies, to allow them to serve their interests in a responsible and self-determined manner, operating in their power (Clonan-Roy, Jacobs, & Nakkula, 2016). When the public considers the police as credible, they are most likely to help the police in reducing violence (i.e. investigating violence or asking for assistance). Citizens may be helping police as they believe police are successful at handling violence and social chaos (Triantafillou & Nielsen, 2001). When the police are seen as successful, the support that the police have to provide will be perceived by the public as more valuable because it will have a better potential to contribute to tangible outcomes (Wang, 2013). This indicates that individuals carry out instrumental authority tests, collaborating alongside the police because they consider that the police cope efficiently alongside group concerns and conflicts. The public views police as trustworthy, most likely to empower the police to carry out their policing duties, and less likely to attempt and limit police action or hinder police activity (Gasper & Davies, 2018). The current hypothesis has been developed using self-categorization theory which postulates that people work on their gatherings and try to adapt to evaluate their self-esteem (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Thus, this study has hypothesized that:

H5. Orientation towards policing has a significant effect on empowerment.

Orientation Towards Policing and Compliance

The term compliance identifies the degree to which people cooperate with someone and do accordingly to their command. Also, when people refer to some authority as legitimate then it has been deemed that people will try to comply with their terms willingly. Similarly, Tyler (1997) stated that when the courts and police are legitimate and trustworthy in the eyes of people so then people will easily comply with their wishes and directives. Also, the major element is that the current motivation has been termed as different from the belief that a person is likely to be caught and then tried to be punished for not following the law. Also, authorities are trying to make people accept that authorities have granted legitimacy to the police to react towards any disobedient of law and fight against the crime (Segrave & Ratcliffe, 2017). So, people try to obey and follow police because police are legal and represent law respectfully and powerfully; hence, to feel compliance with police it is also necessary to feel compliance with the law as well (Farren, Hough, Murray, & McVie, 2018). The aspect of legal legitimacy might help in understanding the level of variation in self-reported compliance because people tend to respect and treat the law equally; as people try to follow rules even if people do not comply with the law (Murray et al., 2020). This hypothesis has been developed using self-categorization theory which states that this theory helps people in identifying the characteristics and activities of the gathering or a group which eventually led towards examine and know their qualities (Turner et al., 1987). Hence, with the above-mentioned reasons, the study has hypothesized that:

H6. Orientation towards policing has a significant effect on compliance.

Orientation Towards Policing and Cooperation

It has been acknowledged that by restricting their role with criminal activity, police expect more from individuals than simply their ability to defer to rule (Adamonienė & Ruibytė, 2017). The police do want neighborhood leaders to partake in constructive activities that are helping the police combat crime. New reports make it clear that without the cooperation of city members the police cannot successfully monitor crime and disorder (Nalla, Meško, & Modic, 2018). In other words, as people consider the police as credible, they are more likely to agree to police action willingly, and less likely to contest it (Roberts, 2018). Greater coordination would help police to more easily and efficiently perform their

regulatory position. Legitimacy is related to the intrinsic sense of legitimacy of people, which thus encourages voluntary, cooperative behavior (Nivette & Akoensi, 2019). When people consider the police as trustworthy they are more likely to contact them and investigate incidents or to donate their time in their neighborhoods' to collaborate for them (Kochel, 2018). This hypothesis has been developed by using self-categorization theory in which people believe that by understanding the perspective and attending their gatherings will help in better know and cooperate with others (Turner et al., 1987). Thus, this study has hypothesized that:

H7. Orientation towards policing has a significant effect on cooperation.

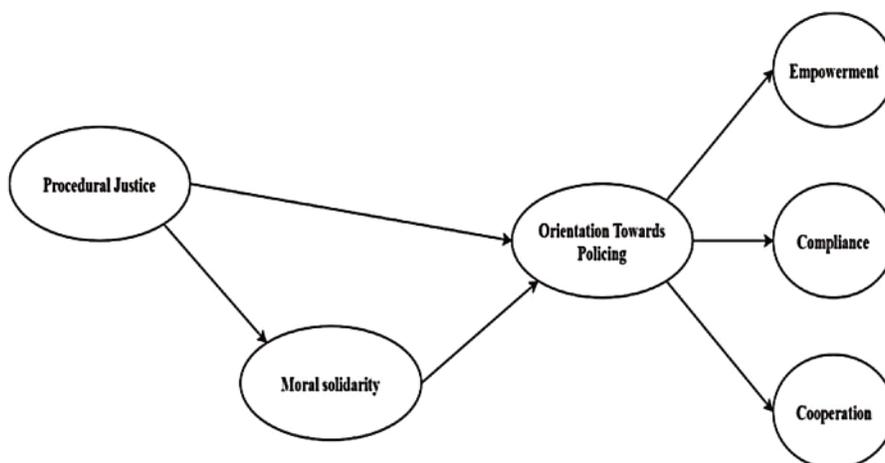


Figure 1: Research Framework

DESIGN AND METHODS

Sampling Design

This research estimated that it is required that 60 responses have to collect based on $N(10)$ formula Hair, Ringle, and Sarstedt (2011) as $6(10)$ is equal to 60, therefore, the researcher collected a sample of 296 responses. The non-probability purposive sampling technique is a kind of sampling technique where the researcher gathers the information from the population that can provide abundant and accurate data. The non-probability purposive sampling technique was used as this research needs that the data provides significant information as it is collected from experts in the industry (Westland, 2010). The target population of the study consisted of the citizens of Karachi that have encountered an experience with Sind police.

Instrument

The five-point Likert scale questionnaire was utilized for the collection of data. The five-point Likert scale was used as it allows the research to increase the overall response rate because it creates less confusion. The data was collected using the survey methodology. The survey method is where respondents are asked questions face to face using the questionnaire adopted for the study. The method of the survey allows the researcher to gather the information in lesser time as well as it is also cost-effective and it can also be easy to administer by the researcher. This research used the self-administered questionnaires for the collection of data.

Seven measures for procedural justice were adapted from Sunshine and Tyler (2003) based on a five-point Likert scale including “How often do people receive the outcomes they deserve under the law when they deal with the police?”. Five measures for empowerment were adapted from Sunshine and Tyler (2003) based on a five-point Likert scale including “The police should have the right to stop and question people on the street”. Ten measures for cooperation were adapted from Sunshine and Tyler (2003) based on a five-point Likert scale including “call the police to report a crime occurring in [they’re] neighborhood”. Seven measures for compliance were adapted from Sunshine and Tyler (2003) based on a five-point Likert scale including “where to park your car legally”. Seven measures for moral solidarity were adapted from Sunshine and Tyler (2003) based on a five-point Likert scale including “The law is usually consistent with the values of the people in [my] neighborhood about what is right and wrong”.

Data Analysis

The present research used the PLS-SEM (partial least squares-structural equation modeling) technique for the analysis of the data. The PLS-SEM is a kind of structural equation modeling where the researcher evaluates the correlation as well as the cause and impact linkage among the elements of the research model (Chin, Thatcher, Wright, & Steel, 2013). The partial least squares structural modeling technique allows the researcher to evaluate the complex relationships between the research variables effectively and much ease. The PLS-SEM also can robustly control more description variables, whereas also providing higher predictive accuracy (Ringle, Sarstedt, & Straub, 2012). The PLS-SEM technique was used with the help of the SmartPLS software version 3.2.8.

RESULTS AND FINDINGS

Demographic Profile of the Respondents

The demographic profile of the respondents showed that there were a total of 296 responses. Of the 110 (37.2%) were males and 186 (62.8%) were females. Also, 46 (15.5%) were aged from 18 to 24, 218 (73.6%) were aged from 24 to 33 and 32 (10.8%) were aged from 35 to 44. Moreover, 190 (64.2%) were graduates, 96 (32.4%) were post-graduates and 10 (3.4%) had other qualifications. Lastly, 8 (2.7%) earned 25000 PKR or below, 178 (60.1%) earned 25001 to 50000 PKR, 105 (35.5%) earned 50001 to 75000 PKR and 5 (1.7%) earned 75000 PKR and above.

Variables and Factors	Questions	Descriptive Stats		Confirmatory Factor Analysis		
		Mean	Standard deviation	Outer Loading	T Stats	P Values
Moral Solidarity	The police in [my] neighborhood act in ways that are consistent with [my] own moral values about how people should be treated.	3.42	1.16	0.95	166.46	0.00
	The values of most police officers are very similar to my own	2.81	1.37	0.95	166.17	0.00
	I think that most police officers would respect my value.	2.97	1.25	0.94	74.26	0.00
	I think that most police officers would value what I contribute to my neighborhood	3.72	0.89	0.74	22.73	0.00
Compliance	where to park your car legally	3.97	0.74	0.94	173.34	0.00
	how to legally dispose of trash and litter	4.01	0.66	0.90	66.35	0.00
	not taking inexpensive items from stores or restaurants without paying	4.26	0.44	0.87	50.24	0.00
	Not using drugs such as marijuana.	4.19	0.39	0.80	26.22	0.00
Cooperation	call the police to report a crime occurring in [their] neighborhood	3.82	0.93	0.72	16.04	0.00
	Help the police to find someone suspected of committing a crime.	4.05	0.62	0.80	36.36	0.00
	call and give the police information to help the police solve a crime	3.99	0.89	0.89	62.63	0.00
	spend some of [they're] time helping new police officers by showing them around [their] neighborhood	4.28	0.61	0.62	16.15	0.00
	Be willing to serve on a neighborhood committee to discuss problems in [their] neighborhood with the police.	4.39	0.61	0.91	74.72	0.00

Em- power	The police should have the power to decide which areas of the city should receive the most police protection	3.53	1.08	0.87	12.02	0.00
	Because of their training and experience, the police are best able to decide how to deal with crime in your neighborhood	3.45	1.10	0.85	11.70	0.00
	The police should have the power to do whatever they think is needed to fight crime.	3.53	1.05	0.90	13.41	0.00
	If we give enough power to the police, they will be able to effectively control crime.	3.98	0.84	0.66	10.78	0.00
Proce- dural Justice	make decisions about how to handle problems in fair ways	4.32	0.54	0.77	22.72	0.00
	treat people fairly	4.14	0.80	0.89	36.58	0.00
	How often do people receive the outcomes they deserve under the law when they deal with the police?	4.11	0.76	0.76	13.98	0.00
	Are the outcomes that people receive from the police better than they deserve, worse than they deserve, or about what they deserve under the law?	4.32	0.79	0.78	15.20	0.00

In the above table moral solidarity has 4 items loaded. The first item *“The police in [my] neighborhood act in ways that are consistent with [my] own moral values about how people should be treated.”* has a mean value of 3.42 and a standard deviation of 1.16. Its outer loading was 0.95 and was found statistically significant (166.46, $p < 0.05$). The second item *“The values of most police officers are very similar to my own”* has a mean value of 2.81 and a standard deviation of 1.37. Its outer loading was 0.95 and was found statistically significant (166.17, $p < 0.05$). The third item *“I think that most police officers would respect my value.”* has a mean value of 2.97 and a standard deviation of 1.25. Its outer loading was 0.94 and was found statistically significant (74.26, $p < 0.05$). The fourth item *“I think that most police officers would value what I contribute to my neighborhood”* has a mean value of 3.72 and a standard deviation of 0.89. Its outer loading was 0.74 and was found statistically significant (22.73, $p < 0.05$).

In the above table, compliance has 4 items loaded. The first item *“where to park your car legally”* has a mean value of 3.97 and a standard deviation

of 0.74. Its outer loading was 0.94 and was found statistically significant (173.34, $p < 0.05$). The second item "*how to legally dispose of trash and little*" has a mean value of 4.01 and a standard deviation of 0.66. Its outer loading was 0.90 and was found statistically significant (66.35, $p < 0.05$). The third item "*not taking inexpensive items from stores or restaurants without paying*" has a mean value of 4.26 and a standard deviation of 0.44. Its outer loading was 0.87 and was found statistically significant (50.24, $p < 0.05$). The fourth item "*not using drugs such as marijuana.*" has a mean value of 4.19 and a standard deviation of 0.39. Its outer loading was 0.80 and was found statistically significant (26.22, $p < 0.05$).

In the above table, cooperation has 5 items loaded. The first item "*call the police to report a crime occurring in [their] neighborhood*" has a mean value of 3.82 and a standard deviation of 0.93. Its outer loading was 0.72 and was found statistically significant (16.04, $p < 0.05$). The second item "*help the police to find someone suspected of committing a crime.*" has a mean value of 4.05 and a standard deviation of 0.62. Its outer loading was 0.80 and was found statistically significant (36.36, $p < 0.05$). The third item "*call and give the police information to help the police solve a crime*" has a mean value of 3.99 and a standard deviation of 0.89. Its outer loading was 0.89 and was found statistically significant (62.63, $p < 0.05$). The fourth item "*spend some of [they're] time helping new police officers by showing them around [their] neighborhood*" has a mean value of 4.28 and a standard deviation of 0.61. Its outer loading was 0.62 and was found statistically significant (16.15, $p < 0.05$). The fifth item "*be willing to serve on a neighborhood committee to discuss problems in [their] neighborhood with the police.*" has a mean value of 4.39 and a standard deviation of 0.61. Its outer loading was 0.91 and was found statistically significant (74.72, $p < 0.05$).

In the above table empower has 4 items loaded. The first item "*The police should have the power to decide which areas of the city should receive the most police protection*" has a mean value of 3.53 and a standard deviation of 1.08. Its outer loading was 0.87 and was found statistically significant (12.02, $p < 0.05$). The second item "*Because of their training and experience, the police are best able to decide how to deal with crime in your neighborhood*" has a mean value of 3.45 and a standard deviation of 1.10. Its outer loading was 0.85 and was found statistically significant (11.70, $p < 0.05$). The third item "*The police should have the power to do whatever they think is needed to fight crime.*" has a mean value of 3.53 and a standard deviation of 1.05. Its outer loading was 0.90 and was found

statistically significant (13.41, $p < 0.05$). The fourth item “*If we give enough power to the police, they will be able to effectively control crime.*” has a mean value of 3.98 and a standard deviation of 0.84. Its outer loading was 0.66 and was found statistically significant (10.78, $p < 0.05$).

In the above table procedural justice has 4 items loaded. The first item “*make decisions about how to handle problems in fairways*” has a mean value of 4.32 and a standard deviation of 0.54. Its outer loading was 0.77 and was found statistically significant (22.72, $p < 0.05$). The second item “*treat people fairly*” has a mean value of 4.14 and a standard deviation of 0.80. Its outer loading was 0.89 and was found statistically significant (36.58, $p < 0.05$). The third item “*How often do people receive the outcomes they deserve under the law when they deal with the police?*” has a mean value of 4.11 and a standard deviation of 0.76. Its outer loading was 0.76 and was found statistically significant (13.98, $p < 0.05$). The fourth item “*Are the outcomes that people receive from the police better than they deserve, worse than they deserve, or about what they deserve under the law?*” has a mean value of 4.32 and a standard deviation of 0.79. Its outer loading was 0.78 and was found statistically significant (15.20, $p < 0.05$).

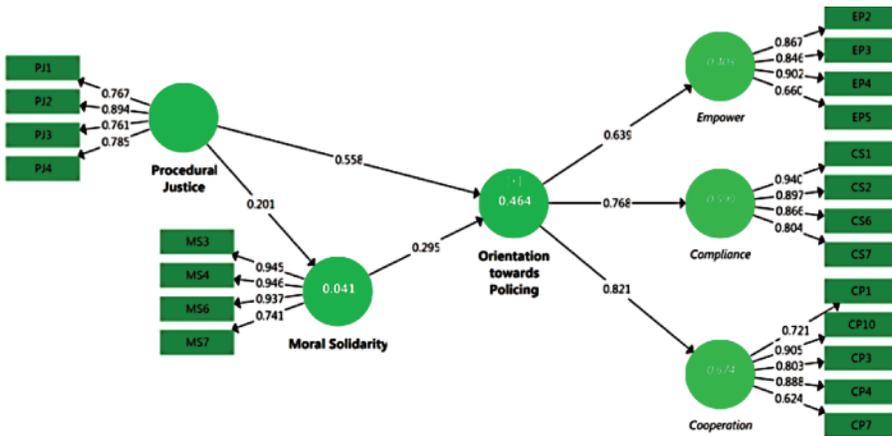


Figure 2: PLS Algorithm using SmartPLS version 3.2.8

Table 2: Fornell and Larcker (1981) Criterion

	COMP	COOP	EMP	MS	PJ
Compliance	0.878				
Cooperation	0.422	0.795			
Empower	0.281	0.305	0.824		
Moral Solidarity	0.170	0.292	0.498	0.897	
Procedural Justice	0.326	0.631	0.388	0.201	0.804

In the above table, bold values are the squared-root of AVE for each latent construct while these bold values were higher than other constructs in the model. Henceforth, discriminant validity using Fornell and Larcker (1981) has been achieved.

Table 3: Heterotrait-Monotrait (HTMT) Ratio

	COMP	COOP	EMP	MS	PJ
Compliance					
Cooperation	0.468				
Empower	0.306	0.318			
Moral Solidarity	0.233	0.342	0.478		
Procedural Justice	0.303	0.723	0.369	0.207	

Following the recommended threshold of Henseler, Hubona, and Ray (2016); Henseler, Ringle, and Sarstedt (2015), the HTMT ratio should be below than 0.85 for considerable discriminant validity. Herein, the above table showed that all latent constructs have an HTMT ratio of less than 0.85 and therefore, discriminant validity using Heterotrait-Monotrait (HTMT) ratio has been achieved.

Structural Equation Modelling

To test the study hypothesis we have used the structural equation model (SEM) whereas the testing has been gone through Smart PLS software. Moreover, to evaluate the indirect and direct effects of all the constructs the testing was done. The use of (SEM) structural equation model has been observed to be a foremost procedure that has been used below different regression models and methods (Baron & Kenny, 1986). It used to evaluate the structural relationship between exogenous and endogenous variables. It includes factor analysis and multivariate analysis. Moreover, the equation of regression targets at explaining each construct to assess the cause and effect relationship while all of the factors in the causal model could demonstrate their cause and effect at the exact time. Likewise, the idea of using this model ensures to apply the technique of bootstrapping which has been viewed as reasonable for both small and large sample sizes and does not require any kind of indirect effect (Hayes, 2013). To check all direct and indirect effects, a technique has been implemented which is known as bootstrapping (Shrout & Bolger, 2002).

Table 4: Hypothesis-Testing

	Estimate	Prob.
Moral Solidarity \Rightarrow Orientation towards Policing	0.295	0.000
Procedural Justice \Rightarrow Moral Solidarity	0.201	0.000
Procedural Justice \Rightarrow Orientation towards Policing	0.558	0.000
Procedural Justice \Rightarrow Moral Solidarity \Rightarrow Orientation towards Policing	0.059	0.000

Above table for hypothesis-testing using PLS-SEM path analysis showed that moral solidarity (0.295, $p < 0.01$) has a positive significant effect on orientation towards policing, whereas procedural justice has a significantly positive effect on moral solidarity (0.201, $p < 0.01$) and orientation towards policing (0.558, $p < 0.01$). Moreover, the mediating effect of moral solidarity (0.059, $p < 0.01$) has also been found positively significant between procedural justice and orientation towards policing. According to Zhao, Lynch Jr, and Chen (2010), moral solidarity has complementary mediation between procedural justice and orientation towards policing.

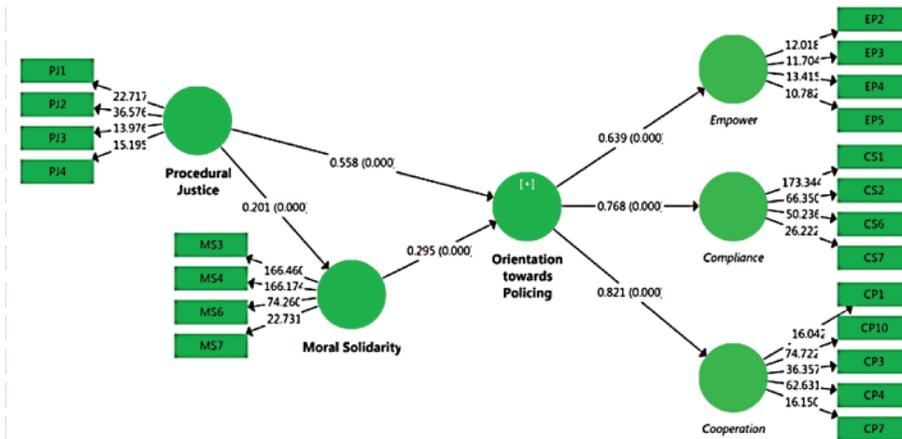


Figure 3: PLS Bootstrapping using SmartPLS version 3.2.8

Mediation Analysis

The following table has shown the results of the mediation analysis.

	Estimate	Prob.
Moral Solidarity \Rightarrow Orientation towards Policing \Rightarrow Compliance	0.227	0.000
Procedural Justice \Rightarrow Moral Solidarity \Rightarrow Orientation towards Policing \Rightarrow Compliance	0.046	0.000
Procedural Justice \Rightarrow Orientation towards Policing \Rightarrow Compliance	0.428	0.000
Moral Solidarity \Rightarrow Orientation towards Policing \Rightarrow Cooperation	0.242	0.000
Procedural Justice \Rightarrow Moral Solidarity \Rightarrow Orientation towards Policing \Rightarrow Cooperation	0.049	0.000

Procedural Justice \Rightarrow Orientation towards Policing \Rightarrow Cooperation	0.458	0.000
Moral Solidarity \Rightarrow Orientation towards Policing \Rightarrow Empower	0.189	0.000
Procedural Justice \Rightarrow Moral Solidarity \Rightarrow Orientation towards Policing \Rightarrow Empower	0.038	0.000
Procedural Justice \Rightarrow Orientation towards Policing \Rightarrow Empower	0.356	0.000
Procedural Justice \Rightarrow Moral Solidarity \Rightarrow Orientation towards Policing	0.059	0.000

The above table has shown orientation towards policing (0.027, $p < 0.01$) has a positive and significant mediation effect between moral solidarity and compliance. The moral solidarity and orientation towards policing (0.046, $p < 0.01$) have positively and significantly mediated the relationship between procedural justice and compliance. The orientation towards policing (0.428, $p < 0.01$) has positively and significantly mediated the relationship between procedural justice and compliance. The orientation towards policing (0.242, $p < 0.01$) has positively and significantly mediated the relationship between moral solidarity and cooperation. Also, moral solidarity and orientation towards policing (0.049, $p < 0.01$) both with double mediation positively and significantly affect the relationship between procedural justice and cooperation. The orientation towards policing (0.458, $p < 0.01$) has a positive and significant mediation effect between procedural justice and cooperation. The orientation towards learning (0.189, $p < 0.01$) has a positive and significant mediation effect between moral solidarity and empowerment. The moral solidarity and orientation towards learning (0.038, $p < 0.01$) both have positively and significantly mediated the relationship with procedural justice and empowerment. The orientation towards learning (0.356, $p < 0.01$) has a positive and significant mediated effect between procedural justice and empowerment. The moral solidarity (0.059, $p < 0.01$) has a positive and significant mediated effect between procedural justice and orientation towards policing.

CONCLUSION AND RECOMMENDATIONS

Procedural justice has a major decisive effect on orientation towards policing with the mediating effect of moral solidarity. Furthermore, the present study determines that Citizens in a community work with police because they believe that police act in harmony with the community and support and uphold community standards through their social regulation acts. However, people who think police use equal methods to assert their jurisdiction often have greater moral unity with the police. Therefore, one manner in which the police should show that they represent community values is to demonstrate procedural fairness through their acts.

As indicated by the approach of social identity, individuals react to group specialists when they see those specialists as prototypical agents of their gathering (Hogg, 2001). In the current study, we propose that individuals in network communication to the police when they feel that the police are standing in solidarity with the community and are supporting and shielding standards of the network in their social administrative activities. The discoveries of this examination bolster that contention. Individuals go along more completely with the police, cooperate with them all the more firmly, and empower them all the more exceptional when they think the police share their virtues (Dagger, 1997).

This worth based connection is particular from individuals' instrumental association with specialists. Individuals likewise conform to the law when they feel that they are probably going to be gotten and rebuffed for neglecting to do as such (Franck, 1999). Along with that, they also make cooperation with the police if they feel that the police are powerful in managing wrongdoing (Tyler, 2004).

Further, our discoveries recommend that individuals' level of recognition with their community shapes their feeling of moral solidarity. The individuals who relate to their community feel more prominent solidarity with the police, accepting that the police share their qualities and the estimations of those in their gathering (Jackson et al., 2012).

Moreover, individuals who think the police practice their power with reasonable processes likewise feel more noteworthy good solidarity towards police. Accordingly, one way in which the police can show that they reflect network esteems is to show procedural justice in their activities. This finding is predictable with different investigations recommending that acting decently additionally upgrades police authenticity (Sunshine & Tyler, 2003).

People use procedural justice knowledge according to the hierarchical model of authority to show both the position of their group and their status within that group Tyler and Blader (2000); Tyler and Lind (1990) Our results endorse this claim by showing that those people who believe the police are reasonably exercising their authority often demonstrate that they identify with their society and that the police represent the moral values of that culture. The police construct their moral standing as representatives of the group by acting fairly (Tyler & Huo, 2002).

The ones whose distinguishing proof with the community is moderate are found, as anticipated, to put the best weight on the procedural justice of police activities while deciding their convictions about their ethical solidarity towards police. To a more noteworthy degree than others, they conclude that the police share the community's virtues when they think the police utilize reasonable methods in practicing their position. The individuals who are distinguished most firmly with the community are progressively sure of their status and spot more prominent load on issues of distributive justice, which is increasingly instrumental (Lind & Tyler, 1988; Tyler, 1994).

RECOMMENDATIONS

This concept relies heavily on the articulation of police values that involve the involvement of citizens in the security and quality of neighborhood life issues. Some of the recommendations are: firstly, community policing encourages that, instead of the incident-oriented method that has continued to dominate in tandem with the professional model, the problem-solving attitude of police be embraced. Emergency calls will still be dealt with immediately and police officers will still spend a great deal of their time dealing with individual cases. Police officers, though, should still attempt to identify the underlying causes that relate to single and repeated accidents. After determining the reasons, officers should use them to track and prevent future accidents.

The examination causes the Authorities to comprehend that there isn't only the need of being fair yet additionally to be viewed as fair. This implies they have to have straightforward methods and to clarify those methodologies and the choices that create through them in manners that permit individuals to comprehend both what they have to do when the choice and how the choice will be made.

Furthermore, police should also understand the Neighborhood wants issues and goals to meet their needs. And this can only be accomplished by focusing on routine interaction and communication between police officers and residents to develop a mutually beneficial relationship. In this context, the idea that police officers are supposed to find creative ways of solving challenges in the neighborhood must be emphasized. Community police emphasize the relationship that should occur between police and people to improve their quality of life.

LIMITATIONS AND FUTURE RESEARCH

Before we finish up, we should take note that the flow study has a significant number of limitations or constraints characteristic in large scale community examination. For example, although drawn from a huge, different geographic example, the cross-sectional nature of as far as possible causal inference. For instance, we make the case that the quality of character with one's ethnic subgroup and impression of police predisposition may bring about a hesitance to cooperate with the police. In any case, the cross-sectional nature of our information doesn't permit us to test whether police predisposition and ethnic gathering personality prompt diminished participation, or whether uncooperative people are less inclined to see police well or are bound to distinguish firmly with their ethnic subgroup.

Some of the recommendations for future researchers are: firstly, the future researcher can take a larger sample size as the current sample size is small. Secondly, Future researchers can collect data from other cities of Pakistan as well to reduce the issue of generalizability. Further, the future researcher may also focus on other types of justice to check their impact on orientation towards policing. Moreover, a qualitative research approach can also be used to collect data so that the researcher can get a better understanding of this topic. The research may also opt for two models that are presented in the study more directly.

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IMPACT OF DEBT FINANCING ON FIRM PERFORMANCE: A CASE OF BUSINESS SECTOR OF PAKISTAN

Aisha Yusuf* and Dr. Abur Rehman Aleemi**

ABSTRACT

It is essentially important to remove the ambiguity as to which measure of financing in a company's capital structure proves as more favorable in improving its performance, or contrarily if there is no relevance of capital structure choice on the company's value creation. For conducting this study, a leverage ratio of Debt-to-Equity and performance measurements of Return-on-Assets, Return-on-Equity and Tobin's-Q ratio have been used as independent and dependent variables respectively to check for the impact of debt financing level on a firm's performance outcomes. Firm age and size have been controlled for, in order to improve the reliability of the results. The sample comprises of 50 business firms of Pakistan, listed on the stock exchange, divided into the sectors of service and manufacturing, and the data has been collected for six years, from 2013 to 2018. Fixed Effects Regression analysis is used for the balanced panel data, which yields that debt financing has a significantly positive impact on firm performance for manufacturing sector companies, while for the service sector, this impact is insignificant. Because of the manufacturing sector, the whole business industry achieves high results on the performance indicators, and since the debt-to-equity ratio is a notable contributor to this achievement, debt financing is found to be beneficial for company's operating activities. Therefore, this paper holds major implications for corporate boards to combine feasible proportions of debt and equity when making financing decisions, and for shareholders and creditors to choose whether to make investments in a potential firm.

JEL Classifications: G320, C100, M000

Keywords: Capital structure, Debt financing, Firm performance, Manufacturing sector, Service sector

*Research Assistant, IoBM.

**Assistant Professor, IoBM.

INTRODUCTION

Background of the Study

Considered as an inexpensive financing method, debt financing offers various benefits to organizations such as tax saving. However, according to some researchers, it might portray a negative picture of the organization having no or less finances of its own and more of others. According to Harris & Raviv (1991), “debt financing is always related to the trade-off between costs and benefits, and there is an optimum level of debt beyond which the costs may exceed the associated benefits”. Therefore, it is crucial for an organization to achieve this level in order to make the most out of its profitability prospects.

The capital structure-performance outcome link for a firm has been a subject of much popularity among contemporary researchers. Capital structure is the pool of debt and equity proportions a firm maintains, for utilization in varied firm operations. Modigliani & Miller (1958) theorized that in a perfect capital market, capital structure does not bear any influence over the performance of a firm. This supposition served a great input in capital structure theories. However, the drawback brought about by this theory pertains to its unreasonable assumptions, being that costs of transaction and taxes are non-existent, the opportunities for all investors to become debtors or creditors are equal, and the market is informational efficient. With debt as the financing source, there is lower amount of tax to be paid due to interest payments, therefore fully debt comprising capital structure would be an ideal scenario (Modigliani & Miller, 1963). But markets in the real world are very different and complex than the above mentioned unreasonable assumptions, and do comprise of imperfections, agency and other costs and information asymmetry (Greenwald, Stiglitz, & Weiss, 1984; Greenwald & Stiglitz, 1993; Jensen & Meckling, 1976; Stiglitz, 1988; Myers & Majluf, 1984).

Various characteristics are associated with each type of finance, such as time period, ownership and control and source of generation. Scale of firms often defines the type of finance they require to continue operations, and there is a major role of the governing board in choosing the appropriate financing technique. Hence, it needs to be looked into whether financing structure impacts firms’ financial performance in the best interests of the stakeholders.

Problem Statement

There exists a lot of variation in the capital structure of different

companies in Pakistan with respect to the composition of Debt and Equity. It is ambiguous as to which form of finance proves beneficial in terms of economic outcomes. Therefore, it is important to know if having considerable debt in the structure improves the performance of a firm, with respect to specific sectors, so that this mode of financing can be widely utilized.

Scope of the Study

The scope of this study lies in serving as key inferences for various stakeholders of the firm. Managers and executives would be able to implement the most efficient capital structure ratios with regard to the firm's performance outcomes, ease of availability and confidence of shareholders and debt holders. This confidence itself would build up through the better figures on the financial statements of the firm. Lastly, favorable and timely carved out debt policies would lead to minimization of the risk of financial distress and other faults.

Research Questions

In order to determine the role of debt financing, this study will answer the following research questions:

1. How much impact does the debt mode of financing have on a firm's performance ratios, when the age and scale of the varied firms are controlled for?
2. How does this impact differ through the service and manufacturing sectors of the industry?
3. Should firms in Pakistan go for debt financing and reap its benefits to continue or expand their operations?

Study Design

Following is the structure this paper is designed in. After the above presented Introduction, the next section gives a detailed account of past studies conducted in the similar area under Literature Review along with the proposed hypotheses, followed by the methodological model and techniques. The next section would describe the Results of the techniques applied, proceeding with the Discussion as compared to past studies. The final section represents Conclusion to the study proceeded by Recommendations drawn for relevant stakeholders.

LITERATURE REVIEW

Debt Financing

Concerning the financial leverage-profitability relationship for an

organization, a vast majority of studies conducted have yielded mixed results. Majumdar & Chhibber (1999), in their study, analyzed this relationship using debt ratio as the predictor variable and Return-on-Assets as the outcome variable proxied for firm performance over a six year period for the Indian companies belonging to different sectors, which resulted in an inverse association between the two indicators. Similarly, in a study based on Swedish SMEs through five industry sectors, fixed effects and three stage least squares models were used, which confirmed that all forms of debt negatively impact the profitability of a firm (Yazdanfar & Ohman, 2015). Muritala (2012) showed in his study that a firm's performance ratios are negatively influenced by its ratio of debt. This study suggested that for a feasible capital structure, asset tangibility ought to be given due consideration because organizations can save themselves from financial constraint with more tangible assets. Other studies concluding for a negative influence of financial leverage on financial performance include the contributions of Goddard, Tavakoli, & Wilson (2005), Salim & Yadav (2012), and Pakistani studies by Sheikh & Wang (2011) and Ahmad, Salman, & Shamsi (2015). Pertaining to a study on Pakistani cement sector, in which the sample comprised of the stock exchange quoted corporations with seven-year data for the cross-sections, the analysis showed that Debt Financing (gauged through Debt-to-Assets ratio) negatively influences performance of corporations, gauged through the Return-on-Assets ratio (Ahmad & Ali, 2016).

As for companies in the U.S, Simerly & Li (2000) analyzed 700 large firms, the results of which showed that financial leverage can have an impact in positive or negative direction, depending on the overall business environment. On the other hand, Mesquita & Lara (2003) carried out their study on differentiated types of debt in Brazilian service companies and concluded that the Return-on-Equity ratio of profitability maintained association with short-term debt in positive direction, however the profitability ratio was inversely related to long-term debt. Nawaz & Ahmad (2017) carried out their study on types of debt analyzing the Pakistani petroleum sector, which yielded that both long and short term debt either associate with firm performance negatively (considering Return on Assets) or insignificantly (Return on Equity).

Jensen (1986) developed a perspective of free cash flow, according to which performance of a firm has positive association with firm's leverage, as managers are increasingly under pressure of making investments in

positive Net Present Value (NPV) projects, the reason being that they are liable to make payments to the creditors in future. Another effect of financial leverage is that higher leverage serves as a monitoring and control mechanism, which is able to reduce the agency problem likely to arise between managers and shareholders, as managers would then strive to pay the issued debt before striving for gains of personal interest (Hutten, 2014).

Additionally, varied sectors have been analyzed by authors in African countries of Ghana (Abor, 2005), Rwanda (Harelimana, 2017) and Kenya (Karuma, 2018) respectively, all of which resulted in capital structure of firms having positive relationship with their financial performance. Considering the reverse causality pertaining to how firm performance affects financial leverage, Shah & Khan (2017) conclude for negative impact of profitability, which means that as firms become more profitable, their capital structure tends to lower on debt. In the same study, it was shown that this capital structure leverage is impacted in a positive direction by factors such as firm size, assets tangibility and the non-debt tax shield.

As regards recent studies are concerned, Aziz & Abbas (2019) conducted their research on the non-financial sector of Pakistan, in which they concluded for detrimental impact of debt financing on corporate performance, irrespective of duration of the debt. The study recommended for keeping the level of debt to a minimum proportion and depend on own financing method. Giving an account of emerging economies, considering non-financial companies in Vietnam using different measures of debt financing, to check for an exhaustive impact of debt on performance, the analysis through dynamic statistical techniques and employment of different variables as controls for greater reliability, also resulted in negative effect of debt financing on performance of companies. Similarly, a study on Indian companies in the manufacturing sector took into account the debt to equity ratio, agency cost indicators and financial performance variables, which resulted in debt financing negatively affecting performance (Pandey, & Sahu, 2019). This leverage in capital structure was found to positively affect (increase) administrative expenses, while no effect was shown on the ratio of sales to assets. These are the proxies used for measuring agency costs, that is, costs incurred by the governing board in resolving the agency issue between managers and shareholders. In consideration of policy implication, the study recommended for strengthening and regulating ownership structure instead of debt concentration.

Firm Performance

According to Neely, Gregory, & Platts (2005), measuring performance relates to determining the level of effectiveness and efficiency of an activity. Organizations are entities that set goals for themselves, plan accordingly, allocate resources and then evaluate to what extent the targeted objectives were achieved. For this reason, measuring an organization's performance for the function of controlling is of indispensable importance (Bititci, Carrie, & McDevitt, 1997). However, the problem arises as to ascertain which performance measure to use for analysis, out of innumerable existing measures. The two broadest classifications of these measures are Accounting-based and Market-based, with the former pertaining to short term and past performance, while the latter category relating to long term and ensuing performance. One of the most appropriate and extensively used accounting-based measures is Return on Assets (ROA), which depicts the state of utilization of assets through shareholder equity (Klapper & Love, 2002; Haniffa & Hudaib, 2006; Ibrahim & AbdulSamad, 2011). Another performance tool under accounting-based measures deemed exhaustive and used widely by researchers (e.g. Al Manaseer, Al-Hindawi, Al-Dahiyat, & Sartawi, 2012; Obiyo & Lenee, 2011; Rouf, 2011; Yasser, Entebang & Mansor, 2011; Chamberlain, 2010) is Return on Equity (ROE), which gauges the proportion of a firm's income as a ratio of shareholder equity. Among market-based measures, Tobin's Q ratio has been analysed by majority of researchers because of its accurate nature (e.g. Shah & Hussain, 2012; Karaca & Ekşi, 2012; Kang & Kim, 2011; Leung & Horwitz, 2010). This ratio compares a firm's market value to its book value and depicts a true picture of the firm's financial performance in the contemporary market.

In a nutshell, an appropriate performance measure should be such that represents the most accurate and overarching impression, and provides basis for comparison over various time periods, therefore this study uses a combination of different measurements.

Firm Size

According to Bain (1951) and Richard, Barnett, Dwyer, & Chadwick (2004), performance of a firm is expected to be positively affected by size of the firm, due to the reason that larger firms, in general, have the advantage of economies of scale over smaller firms and therefore have more power and reach in the market. However, there are studies that conclude for a negative relationship between the two variables, theorizing

that larger-scale firms are usually controlled by managers who are self-oriented rather than firm oriented, and who are likely to meet the goal of utility maximization primarily, before working after profit / value maximization (Pervan & Višić, 2012). Another argument in the context of negative association between firm size and firm performance is that there exists corporate bureaucracy in large-sized firms. This has the tendency to bring the competence level of a firm to a downward sloping curve pertaining to changes in the external business environment and reacting to those changes promptly.

Firm Age

According to the review of a vast literature, no consensus has been established as to the impact of a firm's age on its performance. Firms that are older are more experienced, and therefore, undoubtedly it is expected that they would have higher earnings as compared to the firms that are younger, as they are yet in the starting and / or growing phase of the business cycle. However, just like large-sized firms, old aged firms are also on the verge of corporate bureaucracy, more prone to becoming slack, and reaching towards the ending phase of the business cycle (Smith, Smith, & Verner, 2006).

Lagged Performance Variables

Another control measure used in the study is the lagged value of performance variables, since the debt financing-corporate financial performance relationship is deemed as having a dynamic nature, rather than fixed or static. This argument is supported by many research studies, stating the variation in the current performance of a firm may significantly be explained/determined by its past performance (e.g. Shah & Khan, 2017).

Theoretical Basis

This theory is most closely connected to the Trade-off theory. According to this theory, when a firm needs to choose between the capital structure components of equity and debt, it makes a comparison of costs attached to and prospective benefits of each type of financing. An example of costs related to debt-comprising structure is financial distress, while one of the benefits it brings is the tax advantage at total or marginal level.

Another theory, called as the Pecking Order Theory by Donaldson (1961) forms the basis of this study. This theory is deeply rooted in decisions related to financial structure of firms, and was modified in later

years by Myers & Majluf (1984). It states that a company's priority is to utilize internal funds for financing purposes. Once they are depleted, the company issues debt, and when any more debt issuance becomes non feasible, it goes for equity financing. External ownership is brought into the company as the last resort, and this prioritization is done based on the idea of least effort, or least aversion.

When a firm's value increases due to issuance of new equity, managers are presumed to exploit this rise in valuation to their own advantage, while the investors seek overall advantage for the firm with which return on investments would be optimal and future prospects would increase. Pertaining to this idea, Jensen & Meckling (1976) gave the Agency Theory, which states that there is conflict of interest between principal (owners/investors) and agent (managers). These differing motives can be aligned by the corporate board, usually by offering incentives to the managers called as agency costs (Hill & Jones, 1992). In order to identify if an agency issue exists, corporations usually perform a litmus test, that is comparing their Return on Assets with Return on Equity. Maximizing ROA is the goal of firm's management, while maximizing ROE is the goal of shareholders. If both of them appear to be in opposing directions, there is possibility of an agency issue. However, altering the capital structure through creation of debt can act as a remedial measure, as suggested by recent research, because this scenario would result in more liabilities towards creditors, and additional earnings would be paid out to them on priority basis, before managers invest them in self profitable projects.

Hypotheses

H₁: "Return-on-Assets ratio does not bear influence from the Debt-to-Equity ratio of a firm"

H₂: "Return-on-Equity ratio does not bear influence from the Debt-to-Equity ratio of a firm"

H₃: "Tobin-Q ratio does not bear influence from the Debt-to-Equity ratio of a firm"

H₄: "Return-on-Assets ratio does not bear influence from the Debt-to-Equity ratio of a Manufacturing sector business firm"

H₅: "Return-on-Equity ratio does not bear influence from the Debt-to-Equity ratio of a Manufacturing sector business firm"

H₆: "Tobin-Q ratio does not bear influence from the Debt-to-Equity ratio of a Manufacturing sector business firm"

H₇: "Return-on-Assets ratio does not bear influence from the Debt-to-

Equity ratio of a Service sector business firm”

H₈: “Return-on-Equity ratio does not bear influence from the Debt-to-Equity ratio of a Service sector business firm”

H₉: “Tobin-Q ratio does not bear influence from the Debt-to-Equity ratio of a Service sector business firm”

CONCEPTUAL MODEL

The conceptual model developed for the study is as follows:

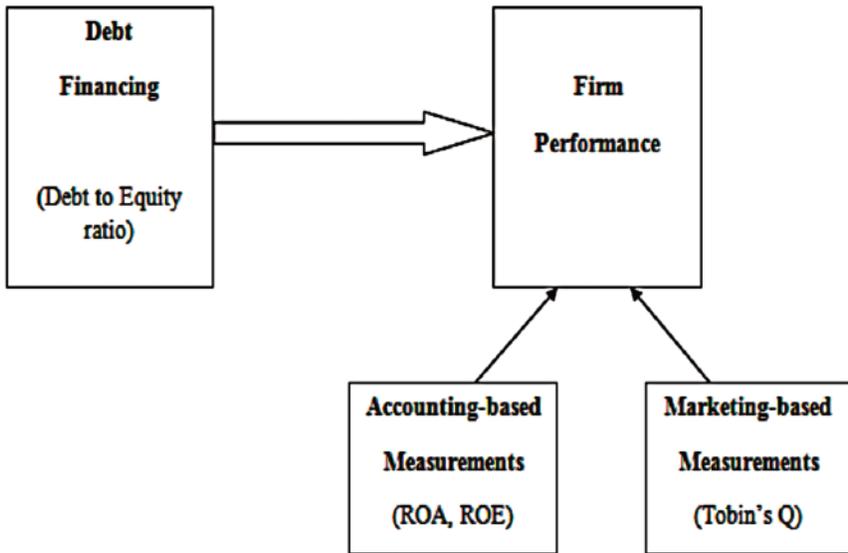


Figure 1. Conceptual Model

METHODOLOGY

Sample and Data

This study is focused on a broad range of organizations across Pakistan. The sample comprises of companies listed on the stock exchange, due to the availability of vast data on financial analysis of these public companies. A large number of researchers (e.g. Marinova, Plantenga, & Remery, 2015) use similar scope in their studies. Companies in the data set belong to the sectors of **Service Industry** and **Manufacturing Industry**. All these companies are members of the Pakistan Business Council (PBC), which is the largest representative body of business companies in Pakistan. The data for the independent, dependent and control variables has been obtained from the financial statements and

annual reports of these companies. The data is a balanced panel, which includes values for 50 firms through six years, that is 2013 to 2018. Pertaining to the included cross-sections, time periods and variables, the total number of observations included is **1,800**.

Study Variables

Table 1: Variable Description

		Description
Independent Variable	Debt to Equity Ratio	The financial ration indicating the relative proportion of shareholders' equity and debt used to finance a company's assets, calculated as Total Liabilities of a company divided by its Shareholder Equity.
Dependent Variables	Return on Assets	Net Income divided by Total Assets at the end of the year
	Return on Equity	Profit After Tax divided by Total Equity shares in issue at year end
	Tobin's Q	Market Capitalization plus Total Debt divided by Total Assets of the Company
Control Variables	Firm Size	Natural logarithm of Total Assets of the company
	Firm Age	Number of years since the company was incorporated
	Tobin's Q-1	One-year lagged value of Tobin's Q
	ROA-1	One-year lagged value of ROA
	ROE-1	One-year lagged value of ROE

Statistical Techniques

For the statistical analysis of our Balanced Panel Data, Fixed Effects Regression is used. With the Hausman test of specification, we reject the null hypothesis that a random effects regression is consistent, as the probability value obtained is 0.00. Hence the model of fixed effects is regarded as suitable.

One argument is that the performance of a firm determines the level of debt financing, as it attracts better and more creditors. Therefore, as a remedial measure to eliminate the reverse causality, one year lagged values of the dependent variables are used.

Following are the regression models run for the data:

For the total sample

$$ROA = \alpha + \beta_1 DE_Ratio + \beta_2 FirmSize + \beta_3 FirmAge + \beta_4 ROA1 + \beta_5 Indus + e_{i,t} + u_i + u_t \quad (1)$$

$$ROE = \alpha + \beta_1 DE_Ratio + \beta_2 FirmSize + \beta_3 FirmAge + \beta_4 ROE1 + \beta_5 Indus + e_{i,t} + u_i + u_t \quad (2)$$

$$TOBINQ = \alpha + \beta_1 DE_Ratio + \beta_2 FirmSize + \beta_3 FirmAge + \beta_4 TOBINQ1 + \beta_5 Indus + e_{i,t} + u_i + u_t \quad (3)$$

For each industry sector

$$ROA = \alpha + \beta_1 DE_Ratio + \beta_2 FirmSize + \beta_3 FirmAge + \beta_4 ROAI + e_{i,t} + u_i + u_t \quad (4)$$

$$ROE = \alpha + \beta_1 DE_Ratio + \beta_2 FirmSize + \beta_3 FirmAge + \beta_4 ROEI + e_{i,t} + u_i + u_t \quad (5)$$

$$TOBINQ = \alpha + \beta_1 DE_Ratio + \beta_2 FirmSize + \beta_3 FirmAge + \beta_4 TOBINQI + e_{i,t} + u_i + u_t \quad (6)$$

RESULTS AND DISCUSSION

Table 2: Descriptive Statistics for the Total Sample

Descriptive Statistics						
Variable	N	Mean	SD	Median	Min	Max
<i>Dependent</i>						
ROA	300	0.087	0.096	0.059	-0.08	0.679
ROE	300	0.24	0.532	0.169	-0.496	7.47
Tobin-Q	300	2.662	3.241	1.378	0.576	25.42
<i>Independent</i>						
SE_Ratio	300	4.045	5.57	1.324	0.05	28.24
<i>Controls</i>						
Firm Size	300	10.579	0.749	10.40	9.12	12.45
Firm Age	300	48.16	29.88	46.00	1.00	155
Industry	300	0.62	0.486	1.00	0.00	1.00

According to the descriptives in Table 2, the mean value of Return on Assets for the 50 companies for six years is 0.087 (8.7 per cent), which shows that the performance of the companies in the sample has been high, as ROAs above 5 per cent are generally considered good. Similarly, the mean Return on Equity amounts to 0.24 (24 per cent), with ROEs of 15-20 per cent being generally considered good. However standard deviation of 0.532 for ROE means that the values in the data set are farther away from the mean, on average. There is large amount of variation in the company figures for this variable. Tobin's Q mean value is 2.662, which depicts success of the overall industry, because the value is greater than one, and this shows that the market value of a company is higher than the book value of its assets.

With the whole business sector singularly taken into account, the capital structure leverage in terms of debt to equity ratio is 4.045 per cent on average. The mean age that the companies can be characterized with is 48 years and according to firm size mean, they can be classified as large businesses.

Table 3: Descriptive Statistics for Service Sector

Descriptive Statistics						
Variable	N	Mean	SD	Median	Min	Max
<i>Dependent</i>						
ROA	114	0.033	0.037	0.018	-0.058	0.1427
ROE	114	0.146	0.102	0.142	-0.218	0.492
Tobin-Q	114	1.139	0.229	1.05	0.645	1.86
<i>Independent</i>						
SE_Ratio	114	8.186	6.876	6.86	0.41	28.24
<i>Controls</i>						
Firm Size	114	11.16	0.768	11.31	9.57	12.45
Firm Age	114	53.5	36.92	55.5	7.00	155

The sub-sample of service firms comprises of 19 cross-sections. The two measures of firm performance depict low mean values (ROA equals to 3.3 per cent and ROE equals to 14.6 per cent), while Tobin's Q indicates long-term success of the sector (Value of ratio is greater than one, that is, 1.139). The firms are 53.5 years old on average and have a large size of business scale (identified using antilog of 11.16). The debt to equity ratio, on average, equals to 8.18 per cent.

Table 4: Descriptive Statistics for Manufacturing Sector

Descriptive Statistics						
Variable	N	Mean	SD	Median	Min	Max
<i>Dependent</i>						
ROA	186	0.12	0.106	0.101	-0.08	0.679
ROE	186	0.29	0.665	0.186	-0.496	7.47
Tobin-Q	186	3.59	3.827	2.178	0.576	25.42
<i>Independent</i>						
SE_Ratio	186	1.507	2.059	0.795	0.05	16.03
<i>Controls</i>						
Firm Size	186	10.219	0.449	10.259	9.12	11.07
Firm Age	186	44.88	24.13	45.00	1.00	124

The sub-sample of manufacturing firms comprises of 31 cross-sections. All the three measures of firm performance depict high mean values indicating success of the sector (ROA equals to 12 per cent, ROE equals to 29 per cent and Tobin's Q ratio is 3.59). The firms are almost 45 years old on average and own assets worth more than 16 billion rupees (calculated using antilog of 10.2), signifying large size of the business scale.

Table 5: Correlation Analysis for the Total Sample

Correlations							
	ROA	ROE	Tobin-Q	DE_Ratio	Firm Size	Firm Age	Industry
ROA	1						
<i>Prob.</i>	——-						
ROE	0.483	1					
<i>Prob.</i>	0.00	——-					
Tobin-Q	0.571	0.568	1				
<i>Prob.</i>	0.00	0.00	——-				
DE_Ratio	-0.378	0.076	-0.166	1			
<i>Prob.</i>	0.00	0.184	0.0039	——-			
Firm Size	-0.345	-0.1	-0.291	0.706	1		
<i>Prob.</i>	0.00	0.082	0.00	0.00	——-		
Firm Age	0.086	0.04	0.054	-0.128	0.173	1	
<i>Prob.</i>	0.135	0.489	0.349	0.026	0.0025	——-	
Industry	0.437	0.138	0.368	-0.582	-0.615	-0.14	1
<i>Prob.</i>	0.00	0.016	0.00	0.00	0.00	0.0152	——-

Correlations analysis was carried out for the total sample in order to check for the degree of association among the variables of concern.

Firstly, the predictor variable, Debt-to-Equity ratio, resulted in negative moderate relationship with Return-on-Assets and negative weak relationship with Q ratio, however it was not found to be significantly related with Return-on-Equity.

As regards the control variables, Return-on-Assets and Q ratio maintain negative moderate association with size of the firm, while significant relationship resulted neither between ROA and firm's age nor Q ratio and firm's age. Similarly, the ratio of Return-on-Equity has negative but weak association with size of the firm, while ROE and age of the firm have no relationship with each other.

Firm age and size are significantly related to the D/E Ratio, with age having a weak negative correlation and size having very strong positive correlation value, which implies that as the firms get older, they make lesser use of debt financing, however, with increase in the firm's scale, more debt ratio is preferred. Age and size have significant positive relationship with each other, which indicates that the larger firms are also the older ones.

Table 6: Regression Analysis for Total Sample

	(Model 1) ROA	(Model 2) ROE	(Model 3) TOBINQ
Debt to Equity Ratio <i>Prob.</i>	-0.001 0.38	0.039 0.00	0.0335 0.26
Firm Age <i>Prob.</i>	0.00011 0.44	0.0025 0.0329	0.0024 0.484
Firm Size <i>Prob.</i>	-0.0022 0.80	-0.198 0.004	-0.103 0.609
Industry <i>Prob.</i>	0.025 0.035	0.209 0.0185	0.568 0.033
ROA1 <i>Prob.</i>	0.628 0.00		
ROE1 <i>Prob.</i>		0.327 0.00	
TOBINQ1 <i>Prob.</i>			0.822 0.00
R-Squared	0.559	0.222	0.79
Adjusted R-Squared	0.543	0.193	0.782
Observations	250	250	250
F-Statistic	33.92	7.644	100.56
Prob. (F-Statistic)	0.00	0.00	0.00
Cross-section Effects	None	None	None
Period Effects	Fixed	Fixed	Fixed

The results of the regression analysis in Table 6 indicate that all the three models are significant.

Model 1

The outcome variable, ROA, is insignificantly affected by the Debt Financing decision of the firm, denoted by Debt to Equity Ratio. Similarly, neither the age nor the size of the firm has significant impact on ROA. On the other hand, return on assets is significantly affected by the industrial sector. The interpretation of this would be that if the sector is manufacturing, an increase of 2.5 per cent in ROA is expected in comparison to service sector.

Model 2

Return on Equity is significantly affected by the predictor variable, D/E Ratio. For every one percent increase in the debt, there is increase in ROE by 3.9 per cent, with other variables constant. Firm age and size have significant impact on ROE, with age having positive and size having

negative impact. For one year increase in the firm's age, ROE tends to increase by 0.25 per cent, and the increase in firm size by one unit value of assets leads to 19.8 per cent decrease in ROE. Industrial affiliation also has significant impact on ROE, which means that if the sector is manufacturing, an increase of 20.9 per cent in ROE is expected in comparison to service sector.

Model 3

As for the firm performance variable of Tobin's Q, D/E Ratio holds insignificant impact. The age and size of the firm also hold insignificant effect on Tobin's Q ratio, while the ratio is significantly and positively affected by industrial sector, and signifies that there would be increase in the Q ratio by ratio of 0.568 if the affiliation of the firm is with the manufacturing sector as opposed to the service industrial sector.

Table 7: Regression Analysis for the sub-sample of Service Sector

	(Model 1) ROA	(Model 2) ROE	(Model 3) TOBINQ
Debt to Equity Ratio <i>Prob.</i>	-0.0013 <i>0.063</i>	0.039 <i>0.00</i>	0.0335 <i>0.26</i>
Firm Age <i>Prob.</i>	-0.000027 <i>0.75</i>	0.0025 <i>0.0329</i>	0.0024 <i>0.484</i>
Firm Size <i>Prob.</i>	0.0005 <i>0.92</i>	-0.198 <i>0.004</i>	-0.103 <i>0.609</i>
ROA1 <i>Prob.</i>	0.633 <i>0.00</i>		
ROE1 <i>Prob.</i>		0.66 <i>0.00</i>	
TOBINQ1 <i>Prob.</i>			0.82 <i>0.00</i>
R-Squared	0.629	0.518	0.703
Adjusted R-Squared	0.594	0.474	0.675
Observations	95	95	95
F-Statistic	18.25	11.58	25.5
Prob. (F-Statistic)	0.000	0.000	0.000
Cross-section Effects	None	None	None
Period Effects	Fixed	Fixed	Fixed

For the Service Sector Regression Analysis, Table 7 indicates that all the three models are significant. The predictors in Model 1 explain 59.5

per cent of variation in return on assets, while 47.4 per cent of variation in return on equity is explained by the predictors in Model 2. The explanatory power of Model 3 is 67.5 per cent.

Model 1 shows that ROA for service firms is significantly affected by the Debt to Equity Ratio of the firms. The impact is negative, which indicates that with one percent increase in D/E Ratio, ROA decreases by 0.13 per cent, keeping other variables constant. On the contrary, neither the age nor the size of the firm has significant impact on ROA. Model 2 outcome variable, Return on Equity, is insignificantly affected by the predictor variable, D/E Ratio. Similarly, there is no change in ROE of a service firm as an impact of its age or size. For the performance variable of Tobin's Q (Model 3), all the independent and control variables hold insignificant impact.

Table 8: Regression Analysis for the sub-sample of Manufacturing Sector

	(Model 1) ROA	(Model 2) ROE	(Model 3) TOBINQ
Debt to Equity Ratio <i>Prob.</i>	-0.0013 <i>0.66</i>	0.187 <i>0.00</i>	0.172 <i>0.0165</i>
Firm Age <i>Prob.</i>	0.0002 <i>0.316</i>	0.0051 <i>0.007</i>	0.0051 <i>0.417</i>
Firm Size <i>Prob.</i>	-0.0011 <i>0.93</i>	-0.145 <i>0.147</i>	0.086 <i>0.799</i>
ROA1 <i>Prob.</i>	0.62 <i>0.00</i>		
ROE1 <i>Prob.</i>		0.199 <i>0.003</i>	
TOBINQ1 <i>Prob.</i>			0.812 <i>0.00</i>
R-Squared	0.449	0.445	0.766
Adjusted R-Squared	0.419	0.415	0.753
Observations	155	155	155
F-Statistic	14.90	14.90	59.79
Prob. (F-Statistic)	0.000	0.000	0.000
Cross-section Effects	None	None	None
Period Effects	Fixed	Fixed	Fixed

Regression Analysis of the Manufacturing Sector sample, Table 8, indicates that all models for the three respective dependent variables are significant. The

predictors in Model 1 explain 41.9 per cent of variation in return on assets, while the predictors in Model 2 explain 41.5 per cent of variation in return on equity. As for Model 3, 75.3 per cent of variation in Tobin's q ratio is explained by the predictors, which indicates a very high explanatory power of the model.

The first model shows that ROA for firms in the manufacturing sector is insignificantly affected by the Debt-to-Equity Ratio, age and size of the firms. Return on Equity, from Model 2, however, bears positive impact by the predictor variable, D/E Ratio, with every one percent increase in the Debt Ratio causing 18.7 per cent increase in ROE. The age of the firm also positively influences ROE. When the manufacturing firm grows old by one year, ROE tends to increase by 0.51 per cent. There is no change in ROE of the firm as an impact of its size. Considering the ratio of Tobin's Q (Model 3), D/E Ratio holds significant impact, and for every one percent increase in the Debt Financing ratio, Tobin's Q increases by ratio of 0.172. Contrarily, neither the age nor the size of the manufacturing firm significantly influences Tobin's Q.

On the basis of above results, Hypothesis 1, 3, 4, 8 and 9 are retained, while Hypothesis 2, 5, 6 and 7 stand rejected because the impact is significant.

DISCUSSION

The analysis for our study shows that Debt financing bears its influence on performance of business firms, but only partially. While this influence is significant on the Return on Equity ratio, the other two performance indicators hold no significant impact from the ratio of Debt to Equity. ROE of Pakistani business firms in general improves as financial leverage increases, which is in accordance to the findings of a Brazilian study by Mesquita & Lara (2003), in which short term debt was found to positively impact ROE. This result, however, is in contrast to the study of Nawaz & Ahmad (2017), which accounted for insignificant impact of debt on ROE. The second analysis in our study was carried out on the sub-sample of Pakistani service sector business firms. Under this step, debt financing resulted in negative influence on Return on Assets ratio, while the other performance ratios remained insignificant. Our study confirms the findings of Majumdar & Chhibber (1999), Nawaz & Ahmad (2017) and Muritala (2012), where debt proportion is negatively associated with ROA ratio. As third step of the analysis, the manufacturing sector of business firms was taken into account, where the most impact of debt ratio was evident. Here, the two ratios, Tobin's Q (market based measurement) and ROE (accounting based measurement) both were found to be positively affected by debt

financing. Very less number of studies in the literature have resulted in such a positive association, so our findings point towards a different direction. For instance, the studies of Abor (2005), Harelimana (2017), and Karuma (2018) show this uniformly directed association, while the latest studies on emerging countries show otherwise (e.g. Aziz & Abbas, 2019; Pandey & Sahu, 2019).

In a way, it can be said that agency issue does not seem to exist in our sampled companies. The reason behind this deduction is the comparison of firms' Return on Assets with their Return on Equity ratios. Both the performance indicators flow in the same direction, whether increasing or decreasing, for majority of the firms over the six-year period. This disproves the litmus test of identifying conflict of motive between the principal (maximizing ROE) and the agent (maximizing ROA).

Regarding the control variables employed in all of our models, neither size of the firm nor the age held any significance in altering its performance. The reason behind this result could be that the firms in our sample were all majorly large sized with respect to total assets, also there was not much variation in years since the companies were incorporated and they were more or less of similar ages. Irrespective of the cause of this insignificance, our results are in contrast to the findings of Richard, Barnett, Dwyer, & Chadwick (2004), Pervan & Višić (2012), and Smith, Smith, & Verner (2006). Richard et al. (2004) explain for a positive association between firm size and performance, while Pervan & Višić (2012)'s study concluded for a significant but differing direction in this regard. The study by Smith et al. (2006) shows negative impact of a firm's age on its performance due to varied reasons of bureaucracy, slackness, maturity, etc.

CONCLUSION

This study is based on the impact of capital structure of firms with regard to the level of financing through debt, on their financial performance. Debt financing holds both its costs and benefits, majorly in terms of financial distress and tax saving respectively. Modigliani and Miller's (1958) capital structure irrelevancy paper has led to much attention of researchers towards the market value of a firm as affected by its capital structure choice in real world scenario. The goal of the firms is to maximize shareholder wealth and obtain high prestige in the market, in order to attract investors and creditors by building confidence in them. Therefore, it is of utmost importance to look at how financing decisions of a firm affect its performance indicators, so that maximum profitability can be achieved through an optimal capital structure.

The sample taken into account for conducting the study is comprised of balanced panel data, with 50 cross sections that are Pakistani firms in the business industry, further divided into the service and manufacturing sectors, and 6 annual periods that are from year 2013 to 2018. Performance of the firms is gauged through the variables of Return on Assets, Return on Equity and Tobin's Q ratio (dependent variables), while Debt to Equity ratio (independent variable) is used as proxy for debt financing. Control variables of firm age, firm size in terms of net assets criterion, and one-year lagged values of the dependent variables are also used to eliminate probable influences from these sources on the predictor-outcome variable impact. For analysis of the data, fixed period effects regression is used, and separate models are developed for each of the three firm performance indicators, under the total industry sample and two sub-samples of different sectors respectively.

The analysis shows that the Debt to Equity ratio has significant positive impact on ROE, but not ROA or Tobin's Q with regard to the business industry as a whole. As for the service sector, D/E Ratio has significant negative impact on ROA, but insignificant impact on the other two variables. Lastly, ROE and Tobin's Q ratio are significantly and positively affected by D/E Ratio of a firm in the manufacturing sector, however ROA bears no significant effect from the debt financing ratio. All in all, the manufacturing sector is more successful in terms of firm performance and contributes a substantial success factor to the whole business industry of Pakistan, and since the values for its performance ratios are reasonably affected by the level of debt it holds in the capital structure, debt financing is deemed to be beneficial for the company in value creation.

RECOMMENDATIONS

The recommendations drawn from the results of this paper are majorly for corporate boards of firms. Firstly, increment in the level of debt in capital structure would serve as an alternative to agency costs, called as "protective covenants". Because creditors would be the recipients of extra earnings by firms, managers would not be able to exploit finances. Secondly, having a greater debt to equity proportion would result in tax saving for firms due to additional expense of paying interest to creditors, therefore firms should take maximum advantage of this facility. As regards Pakistan, the facility of obtaining debt financing is very cheap and commonly available nowadays and is extended by various governmental and private organizations on easy terms.

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