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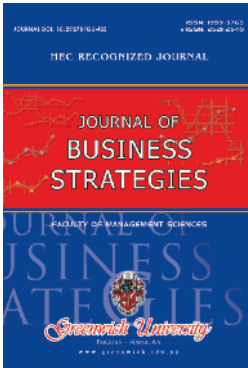


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# Journal of Business Strategies



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## EDITORIAL NOTE

Business education has these days become a procurement exercise. In all significance, its main objective must be the moral and ethical adaption of our corporate system. Yet, if our business teaching does not integrate into our corporate culture and our business curriculum does not reach into the farthest concerns of our corporate society, the instruction and training in our business schools will remain an exercise for a lot more to desire, the enduring consequence of what we are practicing in our business schools and with such abundance say so much more that words can say.

The twenty-seventh issue of the Journal of Business Strategies contains eight Research Articles.

The first paper, “Impact of Aid For Trade in Developing Countries of Asia” is a joint venture of Abdul Aleem Qureshi, PhD Scholar, AERC, Lubna Naz and Shaista Alam, Associate Professor (AERC), University of Karachi, Karachi, examine the Japanese economic crisis by increasing GDP in the last two decades. In this article they investigate the impact of Aft in improving overall trade received in different sectors.

The second paper, “Effect of Human Resource Management Practices on Project Success in Pakistan Ordnance Factories– An Empirical Evidence from POF Wah” written by Muhammad Sowaleh Mirza, MSPM Student, MS Department, BBS, Bahria University Karachi Campus under careful supervision of Prof Dr. Rafique Ahmed Khan and Munaza Bibi, Lecturer BS Department examine the influence of four Human Resource Management (HRM) practices including Recruitment & Selection, Training & Development, Performance Appraisal, and Compensation on project success in the Pakistan Ordnance Industry.

In the third paper, “Learning Engagement Scale (LES): Development of A Composite Measure and Analysis of Psychometric Properties for Business Schools”, the researchers argue that current measures of learning engagement do not adequately capture overall perceptions of engagement of various stakeholders in the environment of business schools. They propose a classified structure to capture dimensions important to business schools and learning engagement literatures.

In the fourth paper, “Impact of Rewards on Performance of Diverse Workforce in Banking Sector” Syeda Umaima Riaz, PhD Scholar, Department of Public Administration, UoK, and Syed Shahid Zaheer Zaidi, Assistant Professor, Department of Public Administration, UoK analyze how rewards impact performance of workforce

in banking sector of Karachi.

The fifth paper, “Determinants of Cash Holding: Evidence from Financial and Non-Financial Firms Listed on Pakistan Stock Exchange” by Naveed Khan, MS-Scholar Department of Management Sciences, Islamia College Peshawar, Yasmin Kausar and Dr. Hamid Ullah, Assistant Professor investigates the determinants of cash holding for financial and non-financial firms listed at Pakistan Stock Exchange as KSE-100 Index.

In the sixth paper, “Impact of Foreign Direct Investment on Export of Primary Sector: Evidence from Pakistan”, the researchers Afaq Ali Khan, Syed Ghazanfar Inam, and Abdul Ghaffar open discussion the impact of foreign direct investment (FDI) on exports of the primary sector of Pakistan. Their study concludes that foreign direct investment significantly determines the export of primary commodities.

In the seventh paper, “Transformational Leadership and Subordinate Organizational Commitment in Pakistan: The Complementary Role of Status Incongruence and Superior Gender” by the joint ventured research of Salman Fazal Khan and Associate Professor Dr. Danish Ahmed Siddiqui. They analyzed the status disparity in the dyads of junior-supervisor influence capability of a transformational leader to encourage efficient commitment towards an organization between their juniors.

In the last paper, “Real Interest Rate Parity in Pakistan: A Comparative Study”, by Safia Minhaj, analyzed the The empirical existence of Real Interest Rate Parity between Pakistan and its trading and financial allies.

Sincerely,

**Prof. Dr. Shafiqur Rehman**

*Editor,*

*Journal of Business Strategies*

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# IMPACT OF AID FOR TRADE IN DEVELOPING COUNTRIES OF ASIA

<sup>1</sup>Abdul Aleem Qureshi, <sup>2</sup>Lubna Naz, and <sup>3</sup>Shaista Alam

## ABSTRACT

*In the past few decades, the concept of Aid for Trade (AfT) become prominent the developing countries that received the aid and those countries who donate aid. The idea of 'trade, not aid' and even 'trade as aid' also have limited scope. The current study investigates the impact of AfT in improving overall trade received in different sectors. Data on 5 developing countries collected from OCED AfT database for the period 2002 to 2015. The results suggest that aid received in the agriculture and transport sector have positive and significant effects on trade while banking and financial services and Trade Related Policies (TRP) have insignificant impacts on the trade. Moreover, results reveal that the impact of aid on trade is negligible as the amount disbursed is very low in all sectors. There is need to increase in the amount of aid and to also make better economic policies.*

**Keywords:** *Aid for Trade, Developing Countries, OCED, Trade Related Policies (TRP)*

## INTRODUCTION

After the sixth World Trade Organization (WTO) ministerial Conference, the concept of Aid for Trade (AfT) gained increased attention so that the economies could enhance the capacity to implement agreements of WTO. Moreover, they must build their supply side response to improve overall trade and get benefit from the greater market access. The slogan 'trade, not aid' has now overuse universally as it is recognized that trade leads towards the growth and development.

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<sup>3</sup> Associate Professor, AERC

Now the concept of AfT has turned out to be popular among trade and donor's communities. To assist and overcome the constraints and the provision of increased global access is considered as one of the major objectives behind the concept of AfT. In spite of the clarity of this objective, it is evident that the performance of AfT in improving trade-related performance is not sufficient.

Doucouliafos & Paldam (2009) provided that in the past forty years foreign aid has not given any favorable results in general. On the other hand, there are studies available which showed that foreign aid has posed positive impacts in the presence of some special conditions like improved institutions and policy environments (Burnside & Dollar, 2000). There is very little literature available on the quantitative evidence about the effects of AfT. Understanding the effectiveness of AfT is not yet developed that what type of AfT actually provides the best result in achieving the objective of AfT and what types of AfTs fail.

In the last few years, a majority of the developing countries have faced difficulties in getting benefits from the economic and trade-related reforms and as well as in promoting development. It has been revealed that "trade, not aid" or "trade as aid" like remedies also have limits. In today's world, the logic of "trade, not aid" or "trade as aid" has evolved to "AfT". The concept of "AfT" marked a significant progress in making a step forward in accepting trade-specific development by the international community that the efforts and reforms must be long-lasting and meaningful for trade and development. The literature related to aid is not only complex, but it is very voluminous. It poses a challenge to development economists to literally understand the logic between the aid, trade and development.

## **The AfT Initiative**

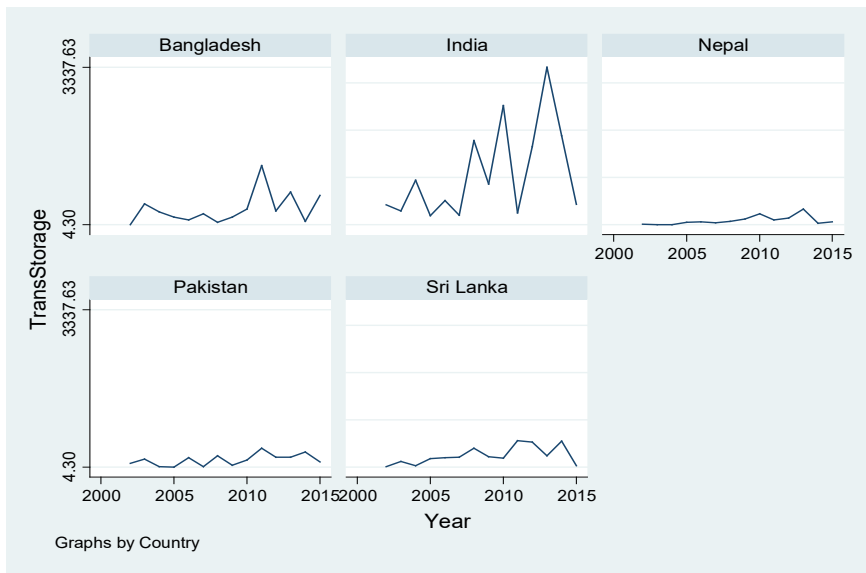
The provision of aid for the purpose of development has been practiced for more than half a century along with scrutiny and debate over the effectiveness for the developing countries. Many developing countries were providing aid to developing countries in multiple forms and purposes. Among these purposes, the alleviation of poverty and improvement of institutions were two main objectives. Moreover, sometimes financial aid also depends on strategic and political interest of the donor countries which also relates to economic needs of the recipients (Ghimire, 2013).

The WTO decided to continue with liberalization of the trade process in the Doha Development Agenda. Stiglitz and Charlton (2006) have given three

main reason about the need of AfT(AfT) facilitation, firstly, to ensure that the Doha Round should go onwards which is political reasons, secondly as a result of the preference erosion an experiment of some arguments especially for the dependent countries are compensation reason, thirdly, AfT represents fairness aspect, as the main winners of Doha Round were possibly be the developed (rich) countries.

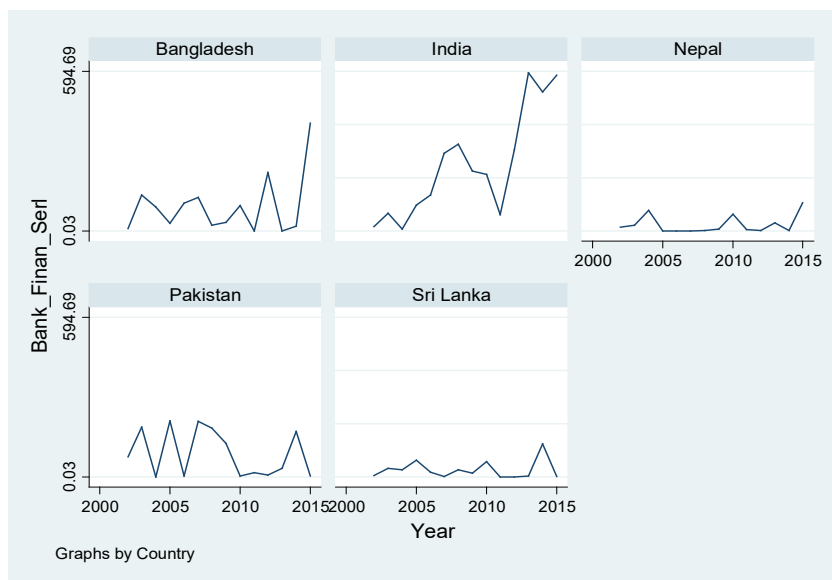
This section shows the trend of Aid received in different sector by different countries from all donor countries. For analysis, trend is drawn between the minimum and maximum values. The analysis covers all aid related variables used in the regression analysis.

Fig 1: The Trend of AfT received in developing countries of Asia aid received for trans storage in different countries



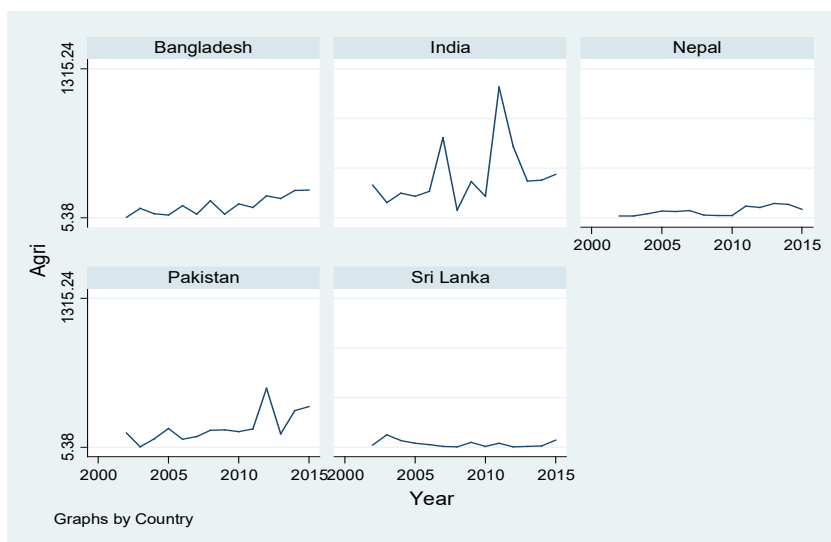
The graphs show the trend of aid received in the trans storage sector. The analysis shows that the aid received in Pakistan, Nepal and Sri Lanka was remain near to the minimum level 4.30 million dollar while in Bangladesh there is an up and down trend. While in India there is in consistent trend, but it reached to highest in 2014 and then decline in 2015.

Fig. 2: Banking and Financial Services



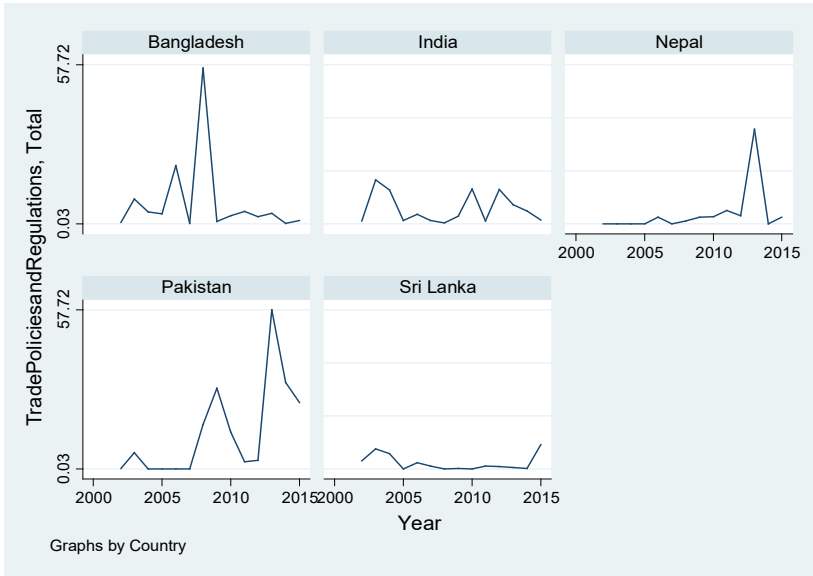
The graphs show the trend of aid received in the banking and financial services. The analysis shows that the aid received in Pakistan there is inconsistent trend and after 2010 touched the lowest level and then improved for 2014. In Nepal and Sri Lanka was remain near to the minimum level 0.030 million dollar while in Bangladesh there is an up and down trend and it reached to highest 2015. While in India there is in consistent upward trend till 2007 but declined for next four years and again forthcoming years shows upward trend.

Fig.3: Aid in Agriculture



The above graph shows the trend of aid received in the agriculture sector, the trend suggests that in Pakistan the amount of aid in the agriculture sector was continuously increasing till the year 2011 and declined for the next two and then increased again. While, in Nepal and Sri Lanka the amount of aid received shows a symmetric pattern and remains closer to around 6 million dollars. On the Other hand, the trend of Bangladesh shows a continuously increasing but inconsistent trend while in India the more inconsistent as compare to Bangladesh.

Fig. 4: Trade Policy and Regulations



The above graph shows the trend of aid received for betterment of trade policy and regulations, the minimum amount received in this sector is .03 million dollars while the highest amount is 57.72 million dollars. The graph suggests that there are huge variations in the aid received by Pakistan and Bangladesh and India, while the trend also shows constant behavior for Sri Lanka. In Nepal the amount of aid was around .03 to .05 million dollars till 2012 and then reached to maximum and then declined again to its minimum in the very next year.

The further topics covered are as follows, detailed review of existing literature presented in section 2 and in section 3 brief theoretical framework on effects of AfT on overall trade is provided, section 4 cover the methodology and model specification used in the research and section 5 sources of data and their definitions section 6 contains the empirical results and discussion and conclusion of the study and policy recommendation were provided in section 7.

## **Literature Review**

There is no vast literature available on the effects of AfT specially as compare to the Burnside and Dollar (2000) argue that the effects of aid on growth are not identifiable when there are other factors involved specially economics policies. moreover, they also contend that aid only raise growth in countries with better policies. Contrary to that Hansen and Tarp (2001) used different econometric specifications and found that aid is effective for growth and that the result do not depends on policy.

In two different studies by Rajan and Subramanian (2005, 2008) they conclude that there is less positive impact of aid on growth. The main finding by them is that they argue that the country's competitiveness is adversely affected by aid, which is reflected that the share of labor-intensive commodities was reduced and also in tradable industries of the manufacturing sector. They also suggest that these are Dutch disease effects, which occur due to the overvaluation of real exchange rate caused by aid inflows.

Doucouliaagos and Paldam (2007) concludes by analyzing 97 different studies based on empirical findings that impact of aid on growth is insignificant. There are numerous other factors that will possibly describe the vagueness of the concept of aid on growth in the previous research efforts. Moreover, Bourguignon and Sundberg (2007) also argues that these diverse results about impact of aid on growth are not surprising because the motives behind aid are not only complex but also diverse in nature. Furthermore, the impact of aid could also depend upon local economic policies, role of institutions, and different other conditions. Hansen and Tarp (2001) suggest that the neoclassical growth model on capital accumulation does not provide a clear theoretical framework for such complex relationship between aid growth. It also does not give any direction about the direction of causality from growth to aid or vice versa, which has make this issue unresolved. McPherson and Rakovski (2001) used different models and found that impact of aid is negative with investment but positive with growth of GDP per capita, While Gomanee, Girma, and Morrissey (2002) reveals that in sub-Saharan African countries a one percentage point in the ratio of aid to GNP contributes one-third of one percentage point to growth. On the other hand, Cali and te Velde (2011) provided investigation of overall impact of AfT. They analyzed that the significant changes in cost of trade of 130 developing countries in the period between 2005-2009, and the changes occurred in the exports of 100 developing countries between 2002 and 2007. The finding suggests that due to facilitation of AfT the cost of trade is reduced. Moreover, by using econometric models and techniques they proved that the AfT resulted in decrease in trade, while aid has positive and significant impact on exports. The spending of aid assistance on economic infrastructure development resulted in export growth. Furthermore, the study

also suggests that measures taken to enhance and improve the productive capacity show insignificant effect on export performance. Helble et al (2009) have used gravity model and presented that a percentage growth of the aid in the trade policy, being equal to 11.7 million dollars and caused 818 million dollars trade expansion globally.

Vijil & Wagner (2010) using econometric method investigated the effects of AfT on the expansion of exports and emphasized on the infrastructure side. The result shows that the 10 percent growth on trade related infrastructure development leads to 1.22% of exports growth in the recipient country and all these are complied with 2.3 percent decline in non-tariffs and tariff barriers. Consequently, authors also contend that the AfT has positive impacts on the export of recipient country. Moreover, according to the study of Burnside and Dollar (2000) aid only benefit those countries that implement appropriately designed and stable policies, and otherwise it is wasted. However, there is no evidence found that foreign aid causes the adoption of “good” macroeconomic policies.

Lemi ( 2017 ) investigated the link for the case of African countries using disaggregated AfT data from China and OECD member countries. The results suggest that flows of aid in all the sectors and for economics infrastructure by OECD have increased the imports and exports for African countries. Pettersson, & Johansson (2011), examined the effects of bilateral AfT on bilateral exports of developing countries and found exports level of donors and recipients increase positively. Moreover, Munemo (2011) also analyzed the impact of overall foreign aid on export diversification and showed that foreign aid can have an anti-export bias due to a Dutch disease effect.

Kiute, et al. ( 2015) examined the impacts of AfT on export performance of developing countries using panel data. The authors found that effect AfT on export performance is insignificant despite having a positive coefficient.

## **Contribution of the Study**

In past studies has evaluated the subject of aid in Pakistan but the aid received for the promotion of trade related activities has not been discussed. The current study has investigated the effects of such aid received in different sectors in Pakistan. Further, this study has also explored the effects of these aid for on overall trade, import and export separately.

## **Theoretical Framework Model Secification**

Although, the scope and specific objective of AfT were recently passed but the available research only analyze the effects that provide the general explanation of

the AfT program or provide empirical analysis of very few countries. Hoekman and Wilson (2010) pointed out that in the current period of uncertain economic condition AfT is necessary, because it is evident that the international trade can assist deprived countries to come out from the economic recession. Additionally, the authors also claimed that economic diversification and improvement in productivity can be achieved through AfT. Developing countries mostly lack the resources that would increase export competitiveness, namely export promotion policies, infrastructure (roads, ports) that may create a favorable business environment for the exporters. These are the ideal sectors in which donor countries invest to improve trade performance Cali, Razzaque & te Velde (2011).

Moreira (2010) argues that the countries with bad infrastructure and weak institutional background underperformed in the international trade. According to him by AfT would be beneficial in providing growth possibilities in the long run. In general, it seems that the AfT has positive impacts on the exports of recipient countries' or cost of trade. While Hühne, Meyer, & Nunnenkamp, (2014) has done a bi-directional analysis which suggests that the effect of AfT and found that AfT not only increases exports of recipient country but also enhances imports from donors. Moreover, the effect tends to increase in exports and dominates the latter, which contradicts the view that donor grants AfT primarily to promote their own export interests.

## **Model Specification**

$$\text{LnTT} = C + \beta_{YYij} + \beta_{YcYcij} + \beta_{\text{dist}} + \beta_{\text{EIC}} + \beta_{\text{BPC}} + \beta_{\text{Dist}} + \mu$$

$$\text{LnExp} = C + \beta_{YYij} + \beta_{YcYcij} + \beta_{\text{dist}} + \beta_{\text{EIC}} + \beta_{\text{BPC}} + \beta_{\text{Dist}} + \mu$$

$$\text{LnImp} = C + \beta_{YYij} + \beta_{YcYcij} + \beta_{\text{dist}} + \beta_{\text{EIC}} + \beta_{\text{BPC}} + \beta_{\text{Dist}} + \mu$$

LnTT= is total trade in millions (import + Export)

Ln exp= Total Exports in millions

Lnimp= Total Imports in millions

GDP= Gross Domestic Product

TRansStor<sup>4</sup>= Aid received in the transport sector

Bank\_fin\_ser= Aid received for bank and other financial services

Industry\_Aid= Aid received for industrial upgradation

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<sup>4</sup> According to OECD definition "Either it is the part of transport or any other sector. Whenever possible, it is reported under the sector in which resource being stored."



Agri\_aid= Aid received in the agriculture sector

The dependent variable for the first model is total trade as it is evident that AfT may improve overall trade in the recipient country. Moreover, aid also influence both export and import performance separately so in the other two models import and export were taken as dependent variables separately that covers the objectives related to effects of AfT on export and import separated models were estimated.

## **Sources of Data and Variable Definitions**

Trade related infrastructure were consisted of transport and storage sector; communication sector and on energy supply in the OECD database as the subsectors of economic infrastructure. While in OECD data set building productive capacity and trade development consisted of banking and financial services, business related and other services, agriculture and industrial subcategories. While data on GDP, Export, Import and FDI is collected from world bank database. Data for the time period 2002 to 2015 of five developing countries includes Pakistan, India, Bangladesh, Sri-Lanka and Nepal is collected from the above-mentioned sources. The results are calculated using pool OLS regression.

## **Assistance for Trade Policy and Regulation**

Resolving arguments of trade negotiation through effective participation and provide them trainings as well. Furthermore, national regulation and its eventually implementations can be unified through ensuring of institutional and technical supports. Under all these categories, assistance is provided to developing countries to get assurance that they must obey international rules and laws and maintain its standard.

## **Trade Development**

In the trade services this area interference will encourage investment and business support services and institutions including E-Commerce, analysis of market analyses and market. development.

## **Trade Related Infrastructure**

The joining of global trading networks which is essential for a country by developing better physical infrastructure like network of roads, seaports, telecommunication and energy network which is essential for a country in anticipating and becoming part of the global trading network.

## Building Productive Capacity

It provides an opportunity to give strength the different sectors of economy by developing/ creating the banking services, tourism, financial institution and better business environment creates an opportunity to strengthen different sectors of the economy.

## Trade-Related adjustments

Through trade reforms and trade liberalization evidently indicates that adjustment to the public budget, provided to cover the costs derived through these trade encouragement indicators.

## Empirical Analysis & Discussion

Table 1: Impact of AfT on Overall Trade

| Variables  | Coefficient | Standard Error | t-Value | P> t   |
|------------|-------------|----------------|---------|--------|
| lgdp       | 0.69663     | 0.05420        | 12.85   | 0.0000 |
| LfDi       | 0.11546     | 0.02971        | 3.89    | 0.0000 |
| TPR        | -0.00313    | 0.00223        | -1.40   | 0.161  |
| Agri       | 0.00058     | 0.00017        | 3.41    | 0.001  |
| Bank_FS    | -0.00003    | 0.00026        | -0.12   | 0.908  |
| Trans_Stor | 0.00026     | 0.00006        | 4.32    | 0.0000 |
| Cons       | 4.31509     | 0.88974        | 4.85    | 0.0000 |
| R2         | Wald Chi    | P> F           |         |        |
| 0.911      | 3326.19     | 0.0000         |         |        |

Authors' Estimate Based on OECD Aid Database

The above table shows the results of different variables that effects the trade for the developing countries. The results show that the impact of lgdp (Gross Domestic Product) is positive and highly significant and the sign of the variable is also according to the theory. Further, it shows that the impact of lfdi also sho positive and significant effect on trade.

For AfT variables, different sector where developing countries are receiving aid are used for analysis and for trade, positive and significant result were found for the aid received in the agriculture and in storage sector (definition given in the above footnote). While other two variables bank financial services and trade related policies (TRP) show negative and insignificant impact on trade.

**Table 2: Impact of AfT on Exports**

| Variables  | Coefficient | Standard Error | t-Value | P> t   |
|------------|-------------|----------------|---------|--------|
| lgdp       | .7681746    | 0.07281        | 10.55   | 0.0000 |
| Lfdi       | 0.1633631   | 0.03991        | 4.09    | 0.0000 |
| TRP        | -0.0055575  | 0.00300        | -1.85   | 0.064  |
| Agri       | 0.0002583   | 0.00023        | 1.13    | 0.259  |
| Bank_FS    | -0.00018    | 0.00035        | -0.52   | 0.602  |
| Trans_Stor | .0001997    | 0.00008        | 2.46    | 0.0140 |
| cons       | 0.68878     | 1.19512        | 0.58    | 0.5640 |
| R2         | Wald Chi    | P> F           |         |        |
| 0.8416     | 2174.33     | 0.0000         |         |        |

**Authors' Estimate**

Table 2 shows the effects of AfT on the exports. The estimate suggests that GDP and FDI has positive and significant effects on exports. While the aid received for trade related policy (TRP) and Banking and Financial Services (Bank\_FS) has insignificant effect on the export. The results of aid received in the agriculture (Agri) and trans storage (Trans\_Stor) sector has positive and significant impact on the export. The data suggest that there is a variation in the amount received by different countries. This may be the reason for insignificant result obtained in our analysis. Ghimir (2013) provided the reason for this low and adverse effects of AfT variable on trade and says that there is a possibility that amount received for policy and regulation related variables shows adverse impact due to elimination of trade barriers which may increase competition for domestic firms with newly entered importing firms damaging the overall production potential of exporting firms that is reflected in the overall trade.

**Table 3: Impact of AfT on Imports**

| Variables | Coefficient | Standard Error | t-Value | P> t   |
|-----------|-------------|----------------|---------|--------|
| lgdp      | 0.657108*   | 0.056991       | 11.53   | 0.0000 |
| lfdi      | 0.091386*   | 0.03124        | 2.93    | 0.0030 |

|            |           |          |      |        |
|------------|-----------|----------|------|--------|
| TRP        | -0.00164  | 0.002349 | -0.7 | 0.4860 |
| Agri       | 0.00075*  | 0.000179 | 4.18 | 0.0000 |
| Bank_FS    | 2.85E-05  | 0.000277 | 0.10 | 0.9180 |
| Trans_Stor | 0.000293* | 6.36E-05 | 4.6  | 0.0000 |
| cons       | 5.236001  | 0.935494 | 5.6  | 0.0000 |
| R2         | Wald Chi  | P> F     |      |        |
| 0.9066     | 2740.18   | 0.0000   |      |        |

Authors' Estimate

Table 3 shows the effects of AfT on the imports. The estimate suggests that GDP and FDI has positive and significant effects on exports. While the aid received for trade related policy (TRP) and Banking and Financial Services (Bank\_FS) has insignificant effect on the import. The results of aid received in the agriculture (Agri) and trans storage (Trans\_Stor) sector has positive and significant impact on the imports.

## CONCLUSION

This paper links the relation between AfT and trade and the other qualitative factors. The findings suggest that aid received for purpose of trade facilitation has a negligible, but significant relationship in enhancing trade flows in case of agriculture and trans-storage. The relationship appears to be null for aid received in those sectors that are more dependent on the overall economic policy of the country. Therefore, according to this point of view about aid policy, the donor must recognize the importance each sector while allocating the amount for disbursement and need to review domestic economic policy environment of aid-recipient countries. The results provide an overall indication that the aid received in the production sectors have positive impacts though they are negligible while the aid received in the policy related qualitative sector have insignificant impacts on trade.

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# EFFECT OF HUMAN RESOURCE MANAGEMENT PRACTICES ON PROJECT SUCCESS IN PAKISTAN ORDNANCE FACTORIES– AN EMPIRICAL EVIDENCE FROM POF WAH

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## ABSTRACT

*This paper aims at examining the influence of four Human Resource Management (HRM) practices including Recruitment & Selection, Training & Development, Performance Appraisal, and Compensation on project success in the Pakistan Ordnance Industry. The study is explanatory in which the deductive approach was adopted; hypotheses were developed after reviewing relevant literature. Primary data were gathered from 264 respondents using an adapted questionnaire which has been further analyzed by adopting statistical techniques containing Pearson's Correlation and Regression with the help of Statistical Package for Social Sciences (SPSS). Results of the study indicate that three factors (recruitment & selection, training & development, and performance appraisal) out of the four predictors have a positive and noteworthy influence on project success whereas the impact of the compensation is not substantial. The findings of the study are considered quite useful for the management of POFs in particular and the entire Ordnance Industry in general. The study is equally beneficial for other*

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**Keywords:** *Recruitment & Selection, Training & Development, Performance Appraisal, Compensation, Project Success*

## INTRODUCTION

In the present dynamic era, one of the important factors of organizational effectiveness and project success is the employee performance which can provide a clear winning edge to the firms. For the progress of almost all leading organizations, human resources are considered to be the most central constituents. Organizational success and retention of superior performers depend upon high level of motivation through multiple benefits and rewards (Watson, 2018). It is important for an organization to achieve employee loyalty through motivation. According to Bird & Frug (2019), organizational effectiveness and employee retention are dependent upon conducive work environment and better compensation. In the context of the Ordnance Industry, human resources are even more significant due to the peculiar nature of the job wherein the development of modern arms and ammunition is undertaken through various projects. Pakistan Ordnance Factories (POFs) are housed in Pakistan's largest Defence Engineering Complex located near Wah cantonment near Taxila, under the Ministry of Defence, Pakistan. The complex encompasses 14 ordnance factories, three commercial subsidiaries with 27,000 employees. Many projects are undertaken concurrently for developing innovative solutions related to arms and ammunition. To complete various projects, the workforce has to be competent and committed to working in a dangerous environment (Imran, Luqman & Zaki, 2016). In a rapidly changing technological environment, organizations need employees who are professionally competent and motivated enough for achieving superior performance (Raineri, 2017). Managing human resource performance is an area of prime apprehension for the managers to achieve organizational objectives (Mohammad, Osman, & Edris, 2014). As organizations are progressively depending on employee performance in the highly competitive market, because of this milieu, it is imperative to focus on the management practices related to human resources (Burma, 2014), because it leads to affect the performance at individual as well as organizational level. In the same vein, Lengnick-Hall et al. (2009) & Caldwell (2008) have asserted that HR practices play a central role in enhancing the effectiveness of HR professionals in achieving the competitive advantage by demonstrating a higher level of performance. In POFs, indigenous development of modern arms and ammunition is often undertaken through projects by in-house teams. Problems do exist regarding the inadequate execution of HRM practices by the management. In case of inappropriate recruitment burdened with bureaucratic influences, less competent workers are hired;



if these workers are not suitably trained before putting them on the job, there are also chances of compromise on quality and cost. Similarly, if performance appraisal is not conducted properly and when employees are not suitably compensated according to their competence and productivity, employee retention and projects' success cannot be ensured (Wambua, 2013). This paper examines four HRM practices being followed at POFs such as recruitment & selection, training & development, performance appraisal, and compensation and examines the contribution of these practices on project success. Therefore, the objectives of this study are appended below:

- To find out the influence of recruitment & selection on project success at POFs.
- To inspect the effect of training & development on project success at POFs.
- To determine the performance appraisal effect on project success at POFs.
- To examine the impact of compensation on project success at POFs.
- To propose measures for further improving the effectiveness of projects at POFs.

## **Literature Review**

### ***Project Success***

A project includes an organized, unique, and time-bound work to achieve a pre-defined goal or objective. The traditional components to be considered for ascertaining the success of a project include time, cost, and quality (Baccarini, 2011). Accordingly, project success encompasses the management of projects related to the processes and criteria for satisfying project on time with the utilization of least cost, and quality for stakeholders. On the other pointer, criteria linked to product success include specifications of the product and the deliverables along with the attainment of strategic objectives for the satisfying need of different stakeholders (Collins & Baccarini, 2004). As such, human resource as an important stakeholder within the organization plays a crucial role in augmenting project performance (Imran et al., 2016). In a project, performance refers to what is accomplished by the human resource in terms of quality & quantity of yield, timeliness, and within allocated budget (Shahzadi, Javed, Pirzada, Nasreen, & Khanam, 2014). Similarly, Rafique, Raza & Imran, (2017) described the performance as an employee's capability to contribute through his work by accomplishing targets and goals specified in a project. Therefore, project performance is related to individuals' performance who work for a designated project (Koshy & Suguna, 2014). Mir & Pinnington (2014) have specified that project success is linked with the individual propensity to perform efficiently by gaining the edge over others through improving their technological infrastructure.

Project success can be assessed through the completion of the project within defined boundaries formed by a functional component and not the individual uniqueness who perform the project (Rafique et al., 2017). Project success mainly depends on how efficiently and effectively talent and skills the project team is utilized to achieve the project goals and objectives (Sarwar, Aftab, & Shahid, 2016). To maximize the probability of project success, organizations need to attain certain standards at both firm and individual levels by utilizing the most influential factor i.e. human resources (Çalışkan, 2010; Muda et al., 2014). In the highly competitive market, employees play a decisive role to achieve optimum success in the project (Inuwa, 2016). In the competitive project environment, organizations essentially need to hone human resource capabilities to enhance project success. Effective implementation of HRM practices plays a significant role in making a favorable environment for completing the projects successfully (Ansari, Haq, & Raza, 2017). Human Resource Management (HRM) Practices plays a significant role in making a favorable environment for completing the projects successfully (Ansari, Haq, & Raza, 2017).

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

The achievement of any organization hangs on efficient human resources working in it (Mankikar, 2014). Management of human resources has become a top priority for firms seeking to achieve a competitive lead in the highly agile and globally competitive business environment. The workforce plays a key role in achieving desired objectives of the organization and implementation of HRM practices are means to end (Kerdpitak & Jermstittiparsert, 2019, 2020). HRM process encompasses the recruitment & selection of competent employees together with the training & development, compensation, and performance appraisal to prompt employees to exhibit higher performance (Ahammad, 2017). Correspondingly, Tabouli, Habtoor, & Nashief (2016) have argued that to improve the project as well as employee performance, organizations must pay attention to HRM policies and practices. So, human resource management is considered a tool to assess competence along with that improving the capabilities of human resources (Burma, 2014), result in improving the performance of an individual. Consistently, HRM practices are valuable for both employees and organization for instance, at the employee level performance as well as satisfaction level be increased. On the other side, for an organization, these practices are beneficial because it results in improving the success chances as well as competitive lead (Shin & Konrad, 2017). Therefore, management practices contribute profoundly in achieving organizational goals through enhancing skills and capabilities of employees needed to improve performance and growth of the organization (Cosack, Guthridge, Lawson, 2010; Dobre, 2013), via enhancing the quality of service (Ueno, 2014), and performance of employees (Mohammad et al., 2014). Whereas, Fatema (2018)

worked out that HR practices are primarily highly influential factors that result due to effective implementation of practices like compensation, recruitment & selection, training & development, and performance appraisal which in turn determine the performance of an organization. Along with that Yang, Chen, Wu, Huang, & Cheng, (2015) explicated that effective implementation of HR practices results in increasing the chances of success related to the project.

### ***Recruitment and Selection***

Abdul Quddus (2015) advocated that recruitment and selection of the right human resource matching with the criteria specified in the selection process through matching the skills of an individual for the intended position are vital functions for successful organizations (Clarke, 2011). Consistently, recruitment is to attract qualified, experienced, and skilled people to suit the present and future requirements of an organization (Breugh, 2016). Whereas the selection process identifies the workforce required to accomplish the organization's mission, work requirements and to obtain the 'best fit' for a job by using different methods for assessment of employees (Breugh, 2016; Myrna, 2008). In the parallel vein, Adu-Darkoh (2014) explicated that selection decision become more significant when the organizations are confronted with competitive labor markets by examining the potential candidates, however, it is well rewarded in terms of achieving the organizational success (Bogatova, 2017; Nasreem, Hassan & Khan, 2016).

### ***Training and Development***

Training is considered an important HR function to improve the knowledge, skills, and attitude of an individual to meet the current needs of a job. While, development is the systematic effort to enhance the knowledge and skill of people for future job requirements (Vinesh, 2014). Keeping in view the significance of training and development learning organizations are more focused on training and developing their human resource mainly to secure market competitive advantage (Bajpai, 2009), result in adding value for organizations to achieve its specified projects successfully (Niazi, 2011). Consistent with this argument, training and development help in the attainment of competitive advantage in the agile global market conditions (Vinesh 2014), result in improving employee performance and motivational level to complete the projects efficiently (Ansari et al., 2017). Accordingly, training and development play a noteworthy role to improve the efficiency of human resources which in turn affects project success (Ahmed & Kolachi, 2013). So, training supports organizations to remain competitive by continually refining employees knowledge & skills (Kilmartin, 2015; Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012), and

also help in achieving the organizational objectives via an effective relationship between employee and employer (Chughtai & Nadeem, 2015; Kirkpatrick, 2014; Long, Kowang, Chin, & Hee, 2016; Miller & Diana, 2002). Similarly, training as well as development aligns learning activities with the corporate strategy (Niazi, 2011), result in improving the success rate of an organization.

### ***Performance Appraisal***

A performance appraisal system is demarcated as an interactive process of determining the performance of an employee for performing his job (Aggarwal & Thakur, 2013). Performance appraisal is the dynamic practice for the management of human resources used in firms to assess and rate employee performance by evaluating progress towards the accomplishment of desired targets (Owoyemi & George, 2013). A performance appraisal measures job-related behavior by determining how an employee is performing presently on the job and how performance can be enhanced for the future (Mehreza & Alamirib, 2019). Therefore, performance appraisal is an effective instrument to assess the performance outlines established by an organization for its workers over the period (Daoanis, 2012; Koshy & Suguna, 2014). Also, performance appraisal is an instrument to communicate values by encouraging flexibility among the employees to take full advantage of individual potential to attain the targets (Kampkötter, 2017). Accordingly, performance appraisal is one of the significant tools of managing human resource systematically (Abuazoom, Hanifi & Ahmed, 2017; Sopiah, 2016; Kumar, Rakesh, Anjum, & Sinha, 2011), to achieve competitive advantage for an organization by assessing the efficiency and effectiveness of employees (Koshy & Suguna, 2014), as a result of this assessment gaps can be fulfilled to complete the project on time (Shaharyar, Baloch, Tariq, Mushtaq, & Mushtaq, 2014). Contrary to that, performance appraisal practice has been criticized due to biases in assessment showed by managers along with the absence of timely feedback to employees (Bekele, Shigutu, & Tensay, 2014; Dessler, 2013). According to Rubel & Kee (2015), impartiality in the performance appraisal process is necessary to distinguish performing employees from non-performing workers based on their performance ultimately lead to enhancing customer satisfaction as well as success of projects happening in the organization (Sippy & Varma, 2014; Singh & Rana, 2013).

### ***Compensation***

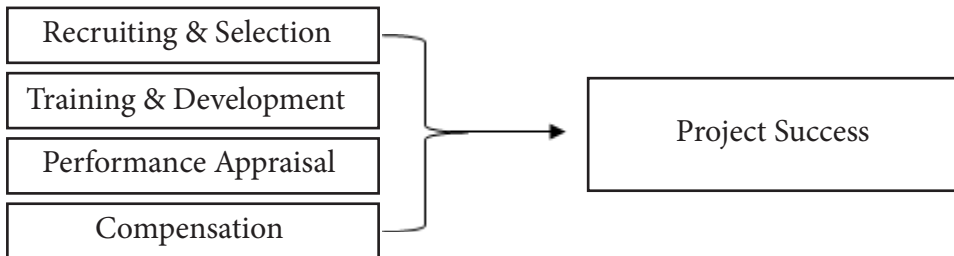
According to Premalatha (2013), compensation is defined as the remuneration or reward given to people in return for the work done and services delivered for the organization as an employee devotes time, and effort (Osibanjo & Adeniji, 2012). Moreover, Dessler (2013) advocated that compensation comprises two key com-

ponents i.e. direct and indirect compensation. Direct compensation includes salary, commission, bonuses, and overtime. While, indirect compensation includes medical benefits, insurance, and vehicle loan, etc. (Osibanjo, Adeniji, Olubusayo, & Heirs- mac, 2014). Furthermore, both forms of compensation can result in affecting the performance positively (Abdullah & Wan, 2013; Chiang & Birtch, 2012; Muhammad & Abdullah, 2016; Siramiati, Surachman, Hadiwidjojo, & Rohman, 2016; Vaiman & Vance, 2008)). Contrary to this, Bustamam, Teng, & Abdullah, (2014) recognized that lack of rewards or compensations can lessen employee efforts and affect the organizational success by providing compensation based on employee performance (Chiang & Birtch, 2012; Muhammad & Abdullah, 2016). Downes & Choi, (2014) argued that compensation also contributes to attract talented personnel as well as improve their performance for organizational outcomes which leads to affect not only motivation but also remains the utmost influential means for the success of an organizational project(Gupta & Shaw, 2014).

## **Theoretical Framework**

Figure 1: Theoretical Framework

Theoretical Framework is based on the research variables, as indicated in figure 1.



## **Research Hypotheses**

- H1: Recruitment & selection has a positive impact on project success.
- H2: Training & development has a positive impact on project success.
- H3: Performance appraisal has a positive impact on project success.
- H4: Compensation has a positive impact on project success.

## **RESEARCH METHODOLOGY**

The type of this causal study is explanatory and descriptive for which deductive

approach was adopted; hypotheses were developed after studying relevant literature. The target population for this study included 2500 supervisor and higher-level employees working in the Pakistan Ordnance Factories (POFs) of Pakistan, Wah Cantt, Taxila. Although sample size for the target population came out to be 333 but 340 questionnaires were distributed. However, only 264 questionnaires were found correctly filled and useful for further analysis. The response rate was 77.6%. Convenient sampling technique was used based on availability of employees, for collection of primary quantitative data (Etikan, 2016). Research instrument of the study was a well-structured questionnaire. Validity of the instrument was also checked through pilot testing. The gathered data were analyzed through statistical tools, Pearson's correlation and regression analyses, with the help of SPSS software.

## DATA ANALYSIS

### Demographics of Respondents

Out of the 264 respondents, 162 employees were in scale 12-15 and 102 respondents were in 16 and above scale having education 24% undergraduates, 42.4% of graduates, and 29.5 % were masters. Among these 104 employees have working experience of more than 15 years, 226 male and 38 were female respondents.

### Reliability Test - Cronbach's Alpha

The internal consistency of the items was checked by applying Cronbach's Alpha test. Reliability results indicate the Cronbach's Alpha for each variable has a value  $>0.7$  which means the instrument used in the research is reliable.

Table 1: Cronbach's Alpha

| Independent Variables     | Cronbach's Alpha | Items |
|---------------------------|------------------|-------|
| Recruitment and Selection | .785             | 5     |
| Training & Development    | .774             | 5     |
| Performance Appraisal     | .795             | 4     |
| Compensation              | .802             | 4     |
| Project Success           | .791             | 5     |

### Correlation test

To find out the relationship of variables, multiple correlation test was applied. Fallouts are indicated in table 2, a correlation exists between the outcome variable

project success and the predictor variables recruitment & selection, training & development, compensation practices, and performance appraisal.

**Table 2: Correlations**

|                              |                     | RS | TD     | PA     | C      | PS     |
|------------------------------|---------------------|----|--------|--------|--------|--------|
| Recruitment & Selection (RS) | Pearson Correlation | 1  | .469** | .141*  | .283** | .345** |
|                              | Sig. (2-tailed)     |    | .000   | .022   | .000   | .000   |
|                              | N                   |    | 264    | 264    | 264    | 264    |
| Training &V Development (TD) | Pearson Correlation |    | 1      | .464** | .360** | .400** |
|                              | Sig. (2-tailed)     |    |        | .000   | .000   | .000   |
|                              | N                   |    |        | 264    | 264    | 264    |
| Performance Appraisal (PA)   | Pearson Correlation |    |        | 1      | .451** | .324** |
|                              | Sig. (2-tailed)     |    |        |        | .000   | .000   |
|                              | N                   |    |        |        | 264    | 264    |
| Compensation (C)             | Pearson Correlation |    |        |        | 1      | .291** |
|                              | Sig. (2-tailed)     |    |        |        |        | .000   |
|                              | N                   |    |        |        |        | 264    |
| Project Success (PS)         | Pearson Correlation |    |        |        |        | 1      |
|                              | Sig. (2-tailed)     |    |        |        |        |        |
|                              | N                   |    |        |        |        |        |

\*\* . Correlation is significant at the 0.01 level (2-tailed). \* . Correlation is significant at the 0.05 level (2-tailed).

**Linear Regression Analysis**

Linear Regression was run to specify the impact of independent variables on the dependent.

**Table 3: Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .478 <sup>a</sup> | .228     | .216              | .71934                     |

As mentioned in table 3, the value of R shows a simple relationship-among the variables which is 0.478 indicating a moderate degree of correlation. R square value is 22.8% which denotes the dependent variable total variation that can be explained by independent variables. Hence, total impact of all IVs on project success is only 23%.

**Table 4: Analysis of Variation (ANOVA)**

| Model   |            | Sum of Squares | DF  | Mean Square | F      | Sig.              |
|---|------------|----------------|-----|-------------|--------|-------------------|
| 1   | Regression | 39.602         | 4   | 9.901       | 19.133 | .000 <sup>b</sup> |
|   | Residual   | 134.019        | 259 | .517        |        |                   |
|   | Total      | 173.621        | 263 |             |        |                   |
| a. Project Success: Dependent Variable  |            |                |     |             |        |                   |
| b. Predictors: Recruitment and Selection, Training and Development, Performance Appraisal, Compensation |            |                |     |             |        |                   |

The ANOVA table shows the correctness level that how the data fits in the regression equation via predicting the dependent variable. Therefore, in the above-mentioned table ‘Significance’ column indicates that the regression is substantial which forecasts the outcome (dependent) variable.

**Table 5: Coefficients**

| Model | Unstandardized Coefficients |            | Standardized Coefficients | t | Sig. |
|-------|-----------------------------|------------|---------------------------|---|------|
|       | B                           | Std. Error | Beta                      |   |      |
|       |                             |            |                           |   |      |



|   |                        |       |      |      |       |      |
|---|------------------------|-------|------|------|-------|------|
| 1 | (Constant)             | 1.337 | .307 |      | 4.348 | .000 |
|   | Recruiting & Selection | .210  | .065 | .204 | 3.235 | .001 |
|   | Training & Development | .231  | .082 | .196 | 2.814 | .005 |
|   | Performance Appraisal  | .181  | .073 | .164 | 2.466 | .014 |
|   | Compensation Practices | .076  | .054 | .089 | 1.409 | .160 |

a. Dependent Variable: Project Success

Table 5 results show that increase in one unit of recruitment & selection results in an increase in project success by 0.21 units. Since the p-value is  $< 0.05$ , consequently, the recruitment & selection effect on project success is observed. In the same way, one unit increase in training & development will fallouts in an increase in project success by 0.231 units. Meanwhile, the value of p is  $< 0.05$ , therefore, the impact of training & development is significant on project success. Moreover, it also displays that one unit increase in performance appraisal will cause an increase in project success by 0.181 units. Since the p-value is  $< 0.05$ , therefore, the impact of performance appraisal is significant on project success. Besides, one unit increase in compensation practice will cause an escalation in project success by 0.076 units. Since the p- value is  $> 0.05$ , therefore, compensation has an insignificant impact on the project success.

## DISCUSSION

The statistical tests of the respondents' data have revealed that recruitment & selection has a positive influence on the project success at POFs. The outcomes are matching with the study of Ansari et al. (2017). The impact of training & development on project success is also significant. The analysis results demonstrate that training and development processes and procedures in POFs are effective that aid the human resource towards enhancing their skills and help them to achieve the desired results in project success. Earlier research by Imran et al. (2016) also demonstrated that training & development programs are the most effective way to succeed in a project. In case of third hypothesis, the performance appraisal has a noteworthy influence on project success. Therefore, the results are in accordance with the study by Imran et al. (2016). The fourth hypothesis of the study is regarding impact of compensation practices on project success. It is evident from the results that effect of compensation practices on project success is not significant. Hence, top management

of POFs should ensure that compensation practices are perceived by the employees as competitive and matching with prevailing inflation in the country.

## **CONCLUSION AND RECOMMENDATIONS**

The study aimed to inspect the association between practices to manage HR comprising of recruitment & selection, training & development, compensation, and performance appraisal on project success. The test results clarify that three factors including recruitment& selection, training & development, and performance appraisal have a positive and substantial influence on a project's success. It is also evident from the research of Belout and Gauvreau (2004) that the above-mentioned practices of HRM play a decisive role in the project's success. However, employees are not satisfied with existing compensation practices. POFs management needs to have more focus on HRM practices to improve organizational performance and hence better project success. This research concludes that various practices to manage human resources may influence the success rate of the projects at POFs.

In order to improve employee contribution and productivity, it is recommended that top management of POFs should take measures to enhance the project success. Special emphasis is to be laid on existing compensation practices which should be better than other industries because life at POFs is much risky and more demanding. Moreover, POFs top management should remain committed to the implementation of the latest trends in HRM practices to accomplish the set goals.

## **SUGGESTIONS FOR FUTURE RESEARCH**

In the current study, only four practices of HR were considered to see its effect on project success. Future scholar may consider other aspects of HRM practices as well, to further improve project success. Moreover, future researchers should conduct a similar study in other sectors as well. Besides, a comparative study of POFs and other manufacturing organizations may also be conducted by future researchers.

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## ANNEX ‘A’

### Questionnaire Survey

Title: “Impact of Human Resource Management Practices on Project Success in Ordnance Industry of Pakistan– An Empirical from POF Wah”

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#### Respondent’s Profile:

|                      |   |
|----------------------|---|
| Gender               | <input type="checkbox"/> Male <input type="checkbox"/> Female   |
| Age (yrs)            | <input type="checkbox"/> 16-21 <input type="checkbox"/> 22-30 <input type="checkbox"/> 31-40 <input type="checkbox"/> >41                 |
| Education (yrs)      | <input type="checkbox"/> Under Graduate <input type="checkbox"/> Graduate <input type="checkbox"/> Master <input type="checkbox"/> Others |
| Job Experience (yrs) | <input type="checkbox"/> 1-5 <input type="checkbox"/> 5-10 <input type="checkbox"/> 10-15 <input type="checkbox"/> More                   |
| Scale                | <input type="checkbox"/> 1-12 <input type="checkbox"/> 12-15 <input type="checkbox"/> 16 and above  |
| Department/Section   | <input type="checkbox"/> HR <input type="checkbox"/> Admin <input type="checkbox"/> Factory <input type="checkbox"/> Workshop             |
| Date                 |   |

#### Instructions:

Kindly answer the below questions and Mark  the right box.

a. Choices are defined as:

1. **SD** (Strongly Disagree);
2. **D** (Disagree)
3. **N** (Neutral);
4. **A** (Agree);
5. **SA** (Strongly Agree)

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| S. No                   | Question Statements                                   | SD<br>(1) | D<br>(2) | N<br>(3) | A<br>(4) | SA<br>(5) |
|-------------------------|---|-----------|----------|----------|----------|-----------|
| Recruitment & Selection |   |           |          |          |          |           |
| RS1                     | Vacancies are openly advertised for broader coverage. |           |          |          |          |           |
| RS2                     | All candidates are given equal opportunity to apply.  |           |          |          |          |           |
| RS3                     | Selection criteria exist for each job.                |           |          |          |          |           |

|                                   |  |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|--|
| RS4                               | Internal recruitment through career development is undertaken effectively.             |  |  |  |  |  |
| RS5                               | Recruitment & selection process is perceived as fair and merit based.                  |  |  |  |  |  |
| <b>Training &amp; Development</b> |  |  |  |  |  |  |
| TD6                               | Proper training need assessment (TNA) is undertaken before planning training programs. |  |  |  |  |  |
| TD7                               | Training objectives are defined prior to each training program.                        |  |  |  |  |  |
| TD8                               | Latest training methods are used to get better training results.                       |  |  |  |  |  |
| TD9                               | Appropriate budget is allocated for annual training programs.                          |  |  |  |  |  |
| TD10                              | Training helps in improving employee performance.                                      |  |  |  |  |  |
| <b>Performance Appraisal</b>      |  |  |  |  |  |  |
| PA11                              | Goals are decided with participation of employees in the beginning of appraisal cycle. |  |  |  |  |  |
| PA12                              | Periodic review meetings are held to examine the ongoing work progress.                |  |  |  |  |  |
| PA13                              | Timely feedback is provided to employees about their strengths and weaknesses.         |  |  |  |  |  |
| PA14                              | Employees are satisfied with overall performance appraisal process.                    |  |  |  |  |  |
| <b>Compensation Practices</b>     |  |  |  |  |  |  |
| CP15                              | Salary & benefits are decided on the basis of industry trends.                         |  |  |  |  |  |
| CP16                              | Rewards are strictly associated with the employee performance.                         |  |  |  |  |  |

|                        |  |  |  |  |  |  |
|------------------------|--|--|--|--|--|--|
| CP17                   | Salary raises and incentives are provided on merit.                      |  |  |  |  |  |
| CP18                   | Employees are generally satisfied with existing compensation package.    |  |  |  |  |  |
| <b>Project Success</b> |  |  |  |  |  |  |
| PS19                   | Projects' success leads to customer satisfaction.                        |  |  |  |  |  |
| PS20                   | Projects contribute in improvement of organization performance.          |  |  |  |  |  |
| PS21                   | Projects enhance technological capability and project team's competence. |  |  |  |  |  |
| PS22                   | Projects improve processes and minimize deviations.                      |  |  |  |  |  |
| PS23                   | Projects increase overall organization's profitability.                  |  |  |  |  |  |

Thank you for your response

# LEARNING ENGAGEMENT SCALE (LES): DEVELOPMENT OF A COMPOSITE MEASURE AND ANALYSIS OF PSYCHOMETRIC PROPERTIES FOR BUSINESS SCHOOLS

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## ABSTRACT

*Current measures of Learning Engagement do not adequately capture overall perceptions of engagement of various stakeholders in the environment of business schools. A classified structure is proposed to capture dimensions important to business schools and learning engagement literatures. Learning engagement Scale (LES) is a composite construct that signifies the inclination of various stakeholders of the learning environment including students, teachers, Alumni, parents and industry. This study has adapted major portion of the scale from reliable international sources and also created a part of the LES through scientific methods. In this study, psychometric properties of the LES were examined on the data obtained from 498 respondents. Structural Equation Modeling (SEM) was used for Psychometric analyses with reliability and validity estimations of the selected sample. Results showed notable convergent validity, factorial validity and internal consistency reliability, of the LES for business school samples.*

**Keywords:** Learning Engagement Scale, SEM, Psychometrics, Business Schools Pakistan

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## **INTRODUCTION**

### **Stakeholders in a Learning Environment**

For today's educational institutes, it is pertinent to acknowledge, identify and classify those entities or persons which have an influence or being influenced by the progression or failure of an educational institute or have any kind of interest in its sustainability, known as "stakeholders" (Kettunen, 2014). An institution's progress and eminence depend upon its relationship with its stakeholders as they are the one who becomes a part in the success or failure of its system. According to (Alves, Mainardes, & Raposo, 2010; Freeman, 1984; Freeman & Evan, 1990; Mitchel, Agle & Wood, 1997) 'organizations', 'networks' and 'private people' are the parties which are considered as stakeholder as these parties provide support to the educational institution in the fulfillment of their prescribed objectives and goals. Stakeholders are divided into two categories: 1) Internal 2) External. Faculty and students are the internal stakeholders while on the other hand the quality of educational institutes determined by the external stakeholders (Becket & Brookes, 2006) including parents, alumni and employers. Parents are the body who have vested higher interest in their children educational institute for their better and bright future but they can put little influence on the progression of that institute (Gross & Godwin, 2005). Employers play their role while hiring the graduated or undergraduate students of a particular educational institute. Employers not only influence an educational institutes success but also they have high interest in their educational system, that how they prepare their students for the workplace and what kind of trainings they are providing to their students for quick placement in the industry. So that employers do not put extra efforts on the fresh candidates for their retraining and development. Thus educational institutes need to understand the requirements of industrial employers that what they require from their prospective employees and should start providing those trainings to the students for their institutes success (Gross & Godwin, 2005).

### **Concept of Engagement**

Researchers are of the view that the concept of engagement is the consequence of a substantial human motivation model which has been intricate and developing from the past several decades (Connell & Wellborn, 1991; Deci & Ryan, 1985, 2000; Skinner, 1991; Wellborn, 1991). As opposed to engagement, the concept of disengagement exist in which the level of engagement including any effort and perseverance is missing. So it is comprised of all these factors which leads a person towards discouragement i.e. resistance, unable to take initiative, despair, state of depression, passivity and despondency (Murdock, 1999; Vallerand, 1997; Peterson, Maier, &

Seligman, 1993).

Maslach, Schaufeli, and Leiter (2001) has defined engagement and distinguish it from the concept job burnout in the way as, “it is characterized by energy (rather than exhaustion), involvement (rather than cynicism) and higher professional efficacy ratings (rather than reduced professional efficacy)”. According to Markos and Sridevi (2010) the concept of employee engagement was previously related with the ‘survey houses’ and ‘consultancy firms’ and very few studies and researchers relate it with the academia. From the previous two decades the concept has been studied and revolutionaries in the field of HRM (Rafferty, Maben, West, & Robinson, 2005; Melcrum Publishing, 2005; Ellis, & Sorensen, 2007). The concept of employee engagement has been emerged from the other two concepts of organizational behavior including commitment and organizational citizenship behavior (Robinson, Perryman, & Hayday, 2004; Rafferty et al., 2005) in which commitment is conceptualized as “positive attachment and willingness to exert energy for success of the organization, feeling proud of being a member of that organization and identifying oneself with it and OCB is a behavior observed within the work context that demonstrates itself through taking innovative initiatives proactively seeking opportunities to contribute one’s best and going extra mile beyond employment contract” (Macey & Schneider, 2008; Robinson et al, 2004).

## **Teachers Engagement**

Teaching is a profession which faces many provocations as this profession demands teachers emotional, intellectual and social energies even in the phases of government restructures and social changes (Day, Kington, Stobart & Sammons,2006).In such an environment they lack adequate support from the relevant sources which becomes the reason for teachers’ turnover and job switching (Hobson et al., 2009). So it is important to know that how teachers remain engaged in a learning environment is one of the purposes of this study.

Kirkpatrick and Johnson (2014) define teachers’ engagement at work as, “the feelings teachers have about their work, which influence the choices they make in directing their effort and energy”. They categorized teachers work engagement into two concepts: 1) psychological 2) behavioral. Teachers work engagement has been defined differently in previous studies but they all are same at one point that teachers’ engagement is not merely a psychological concept but it’s a behavioral concept too.

This concept has been introduced by Schaufeli, Salanova, Gonzales-Roma, and Bakker (2002) and Schaufeli and Bakker (2003) which can be



explained by 3 dimensions: “vigor (high energy, willingness to invest effort), dedication (sense of involvement at work), and absorption (being concentrated on one’s work)”. Thus the engagement is an individual’s assertive, gratifying and task oriented mind status which is comprised by ‘vigor’, ‘dedication’ and ‘absorption’. All these three dimensions contain unique characteristics, as vigor is comprised of prominent energy levels, flexibility of mind while completing a task, doing task by applying full capabilities and willingness, and staying stable in hard times. While the dedication pertains characteristics like a person’s self-realization regarding the work seriousness and significance, eagerness, creativity, dignity, and being competitive and taking challenging tasks (Kanungo, 1982; Lawler & Hall, 1970). The features of absorption contains an individual’s attentiveness and full concentration in his/her task that she/he would not be aware of time, which is referred as flow. Flow is basically such favorable experience in which a person is working with fully focus, clear mindset, self-control, without caring him/herself, and ingrained motivation (Csikszentmihalyi, 1990).

Hao (2000) have studied the relationship between teachers engagement in such a practices which are known as developmentally appropriate and their own personal characteristic and experiences and found significant correlation between variables of study. Rajber & Oklahoma, (2001) have studies the relationship between teacher’s reflective aptitude and self-reported engagement and effectiveness of music teacher and found that teachers’ effective role and their personal efforts for the learning of students played central role for enhancing music teachers’ effectiveness. Researchers have investigated the concept of teachers engagement in diverse settings and context i.e. (Rossmiller, 1988; Metz, 1988; Saunders, 2006; Adekola, 2010; Ariffin, & Hashim, 2010; Lohman, 2006; Skaalvik & Skaalvik, 2013; Kirkpatrick & Johnson, 2014; Kulophas, Ruengtrakul, Wongwanich, 2015; Montgomery, Spânu, Baban, Panagopoulou, 2015; Mojsa-Kaja, Golonka, Marek, 2015; Rashid, Rahman, Abdul Rahman, 2016; Li, Wang, Gao, You, 2017) by taking only one stakeholder of academic institute but this study differ in such a way that each and every stakeholder has been studied in an educational institution in terms of its level of engagement.

## **Student Engagement**

According to Connell & Wellborn (1991) and Skinner (1991) student engagement is, “the intensity and emotional quality of children’s involvement in initiating and carrying out learning activities”. The concept of engagement is basically comprised of two constituents: 1) emotional 2) behavioral. Engaged students exhibit certain characteristics including uninterrupted involvement in learning, select tasks be-

yond capabilities, initiators, implement learned skills and task by using acute efforts and engrossment, positivist, enthusiastic, confident, show keen interest and curiosity in learning activities. Kennedy (2000) have studied the profiles of students studying at different settings (On-campus, Online) and tried to find the factors associated with their success. Pascarella and Terenzini (1991) have inscribed in their study that students' interaction and communication with their teachers outside the classroom is a crucial factor in students' engagement. In the presence of teachers, the practices or activities which students perform in class, promote students' teacher relationship and communication level (Wilson & Gaff, 1975).

Mandernach (2015) explained that it is imperative to assess the student engagement because it is linked with their learning and success but its assessment is basically a challenge for institutions, administration and faulty due to absence of a cohesive definition of engagement. Bowen (2005) have highlighted this gap in his study, "an explicit consensus about what we actually mean by engagement or why it is important is lacking." But from higher education it would be expected that they would be diligent in fostering and assessing student engagement as, "learning begins with student engagement" (Shulman, 2005).

Engagement refers to, "a measure of institutional quality, it is incumbent upon institutions to be intentional about creating educationally engaging learning environments". This concept has gained prominence in higher education, the goal of which is to promote quality education which is the ultimate predictor of student success (Harper & Quayle, 2009). According to Astin (1984), student engagement is, "the amount of physical and psychological energy that the student devotes to the academic experience". Similarly, Skinner and Belmont (1993), define student engagement as "sustained behavioral involvement in learning activities accompanied by positive emotional tone." Barkley (2010), highlights that "...engaging students doesn't mean they're being entertained. It means they are thinking." Kuh (2003) integrate the definition of engagement by taking its three characteristics: 1) cognitive 2) affective 3) behavioral and highlighted simultaneously the students and institutions responsibility for predicting better student engagement. Kuh (2003) define student engagement as, "the time and energy students devote to educationally sound activities inside and outside of the classroom, and the policies and practices that institutions use to induce students to take part in these activities".

Several studies has been conducted to measure and assess the student engagement in higher education at different settings and diverse population i.e. (Skinner & Belmont, 1993; Kenneth & Doris, 1998; Kennedy, 2000; Kinzie, 2009; Skinner & Kinderman, 2009; Skinner & Chi, 2012; Timostsuk & Jaanila, 2015; Jang, Reeve & Deci, 2010; Rasiyah, 2009; Appleton, Christenson, Kim, & Reschly, 2006; Karim &

Hamid, 2016).

## **Alumni Engagement**

As per the UBC Alumni Association (2010-11 Annual Report) universities today are “engaging alumni in the life of the university after completing their degree program, so that they should stay connected with their alma mater and with one another”. For this purpose universities organize some events and invite their existing and passed out students (alumni) so that the current students can spend some time in the company of their seniors and get information about the future opportunities they might get after graduating and gets inspired from the success stories of their alumni. According to Radcliffe (2011) there is not a specific/generalized definition of alumni engagement. The term is basically associated with the alumni’s attitude in terms of their emotional attachment with their alma mater and their participation and attendance in the events or any other behavior which showed their affiliation and connection with the institute.

Sekelsky (2017) has define alumni engagement as, “the level of Attraction, Connection, Affection, and Influence an alumnus has with their alma mater over time.” Educational institutes if want to get benefit from their alumnus and want that their alumnus should stay connected with them they should give benefits to them in return instead of merely relying on solicitation.

Many researchers (Clotfelter, 2003; Gaier, 2005; Hoyt, 2004; Monks, 2003) have argued that the students who are engaged during their studies are the future engaged alumnus. It means if universities identify their engaged students they can easily locate their engaged alumnus. Radcliffe (2011) argued that very little research has been conducted on the alumni engagement and have not been found widely. Moreover, no specific scale has been developed till now to measure this aspect of engagement. Thus this topic needs attention and should be addressed in a more generalized way.

Kaur (2016) has proposed four metrics to measure the alumni engagement: 1) Event attendance 2) Volunteer Participation 3) Vanity Metrics 4) Database counts. While shedding light on the importance of all these four metrics, she explained that every event is considered successful if majority of people attend it. Track all those alumni who signed up and showed interest but for any reason they couldn’t attend or participate in the event. Ask them their priorities or what they want from the institution to participate. Make a vanity metrics by Online tracking number of alumni on the social media that who are tweeting on the institutions posts and share their educational memories. Finally institutions should enhance their outreach to their students by tracking their own progress.

## **Industry Engagement**

Hubbard and Lopp (2015) have inscribed in their study that every stakeholder (parents, students, teachers, industry) in an educational setting desire such an educational environment from where students can get such skills which are required by the industrial sector for recruitment. From this, not only students and industry get advantage but also the academia and the whole society will be benefited. To achieve this goal, academia should involve industry in their educational process by inviting industrial executives who will make them aware about the skill sets which are valuable and most demanded by the employers.

Universities may do collaborations with the industrial sector by including industrial projects in the students' curriculum or through internship programs. Some other ways/forms to do collaborations with the industrial sector include 'work study programs', 'curriculum advisory boards', and 'involvement of industry in student courses design' (Roberts, 2007). The discussion on the collaboration between industry and universities has been started from Russia in 1960's, which were sponsored by government at that time and eventually it changes from government sponsorship to individual universities (Davydchenkov & Latsis, 1967). According to (Sivananda, Sathyanarayana, & Pati, 2009) many studies have been conducted on industry and universities collaboration with the focus of its impact on students learning, courses and academic work experience.

According to Thompson, McGraw and Hair (2015) industry engagement is a thoroughgoing concept and is becoming popular in the educational community. Mostly educational institutes conduct career fairs and counseling events for students but these events did not provide true career guide/support to the students due to time and settings constraints. All the information or knowledge which the students gained from these type of events are termed as "planned happenstance skills" (Kim, Jang, Jung, Lee, Puig & Lee, 2014). Industry and academia collaborations are beneficial at that time when these are managed and designed efficiently and may have research related or program-oriented purposes to engage the students with practical projects to increase the exposure of their education (Peters, & Lucietto, 2016).

Loera, Nakamoto, YounJoo, and Rueda (2013) have explained the role of teachers in the students' career and technical education. They stated that, "If teachers develop and expose students to a career-related curricula program, those students may be more likely to continue in their education and career preparation after high school and feel better prepared for their future" Thus students who are more involved in happenstance events during and before their college, are much capable to face "challenging experiences in problem based learning, research and internship" which they

will do after graduating and for the degree of graduation. Thus as per Thompson, McGraw and Hair (2015) if educational institutes and students want to make a fabulous recipe of success, they should consider engagement in industry an essential ingredient for success.

Thompson, McGraw and Hair (2015) have written an event's success story titled "Making it work (MIW) manufacturing and engineering fair". The event's characteristics lead towards a comprehensive industry engagement model which is based on 3 gap phenomenon 1) "Skills gap(focused on current workforce)" 2) "Incentives gap (focused on industry)" 3) "Interest gap (focused on future workforce)". MIW identify six characteristics to remove skills gap: "involving community, providing career and technical education, applied knowledge and experience, innovation and problem solving, providing students opportunities for scholarship and mentoring, industry engagement." The more the industry is engaged in educational institutes the better the educational institutes may understand about the skills required by the industrial sector. Incentives gap contain characteristics which helped industrial managers to find solutions of their human resource needs including: "industry engagement, social networking, community involvement, innovation and problem solving, applied knowledge and experience, site visitation and inspection." In the interest gap participants have highlighted all those aspects which provide them benefit in the participation: "industry engagement, community involvement, site visitation and inspection, applied knowledge and experience, innovation and problem solving, career counseling by peers in the field, Faculty immersion and mentoring, scholarship opportunities, career and technical education".

## **Parents Engagement**

(Harper, Sax, & Wolf, 2012; McCarron & Inkelas, 2006) have studied the role of parents and their beneficial effects in students educational lives. Previously many studies have been conducted on the parents involvement in their children's educational lives (Green, Walker, Hoover-Dempsey, Sandler, 2007; Grolnick, Slowiaczek, 1994; Pomerantz, Moorman, Litwack, 2007; Useem, 1992; Spann, Kohler, Soenksen, 2003; Updegraff, McHale, Crouter, Kupanoff, 2004; Donna & Sue, 2008). This is also evident from the Kiyama, 2008 and Kiyama & Harper, 2015 who argued that the parental involvement as an overriding prototype has been studied and reinforced from the previous 30 years.

Carreon, Drake, and Calabrese Barton (2005) provided a captivating difference between the terms 'involvement' and 'engagement' and suggested that educators should use the term 'engagement' and should solely focus on it. According to (Carreon et al., 2005, p. 469), "'involvement' has been used to describe the specific things

parents do, while ‘engagement’ also includes parents’ orientations to the world and how those orientations frame the things they do”.

Parental involvement composed of all these traditional behaviors and attitudes including parents participation in the events, meeting with teacher in a parent teacher association, observing daily attendance, purchasing the books or other educational material for the child to read at home, helping in doing homework, and if they have not enough time finding tutor for child’s education (Calabrese Barton, Drake, Perez, Louis, & George, 2004; Daniel-White, 2002; Kiyama & Harper, 2015; Lopez, Scribner, & Mahitivanichcha, 2001; Zarate, 2007). The behaviors depicting parental involvement can be classified into two categories 1) internal involvement (checking attendance) 2) external involvement (ensuring the on time arrival of children in school) (Valencia & Black, 2002). Thus researchers critique the parents’ involvement literature due to its framing gap, continuity, and limited involvement behaviors (Calabrese Barton et al., 2004; Kiyama, 2010; Kiyama & Harper, 2015; Lopez et al., 2001).

While According to Galindo & Medina (2009), “engagement is an overarching set of cultural attitudes and beliefs that belie and inform parental participation and parents’ perceptions about education rather than simply a quantitative behavioral assessment of specific actions that might be better captured by involvement.” Thus, the concept of parents’ engagement comprised of such relationships between educational institutions and parents which are ongoing, strengths based and reciprocal (Halgunseth, Peterson, Stark, & Moodie, 2009). (Calabrese Barton et al., 2004) have broaden the concept of parents engagement from what parents do for their child to how and why they involve and show interest in their children’s school and education. According to (Calabrese Barton et al., 2004, p. 4) in recent times the concept of “engagement” should be defined and used as, “to expand our understanding of involvement to also include parents’ orientations to the world and how those orientations frame the things they do ...and [implies] that parental involvement goes beyond an individual and his or her participation in an event”.

Parents are not only investing money on their children’s education but also making emotional investment while keeping the best interest of their children’s success in mind (Kiyama, Harper, Ramos, Aguayo, Page, & Riestler, 2015). Moving from parents to institutions/universities for the purpose of engaging parents, program orientations and invite parents which provide support to the understated students and provide an opportunity to the parents to assess the future/success of their children (Dennis, Phinney, Chuateco, 2005; Lombardi, Murray, & Gerdes, 2012; Ward-Roof, Heaton, & Coburn 2008). Moreover, universities might engage parents by using several ways such as “family weekends, e-newsletters, parent websites, and professional development opportunities” (Krstic, 2013). Limited studies have been found which

explain the role, responsibilities and programs, institutions are playing to engage parents (Apprey, Preston-Grimes, Bassett, Lewis, & Rideau, 2014).

Thai and Yasin (2018) have studied the deaf child learning in the mathematics subject and the role of parents' engagement in this learning. They used 11 constructs to find out the parents engagement in mathematics learning and found that 'encouragement', 'affection' and 'expectation of child's mathematics achievement' are those constructs whose results are highest and others results are not very highly significant. Szumski and Karwowski (2017) have studied the relationship between parents' engagement in terms of their support and children school achievement among the two groups of children, one with special education needs and other without the special education needs and found that the strategies the parents used for both groups are different. Mligo (2017) have studied the parents' engagement in children early education and found that teachers and parents need close collaboration for building their child's future better. Arshad, Shahzadi and Mahmood (2016) have studied the students perception related to their parents involvement in their education at the level of university and found that students think parents should involve but their involvement would not have any impact on their course/program selection.

## **Evolution of Constructs**

### ***Teachers Engagement***

The construct for measuring teachers' engagement has been adopted from Schaufeli et al., (2001). Schaufeli et al., (2001) has developed the Utrecht Work Engagement Scale (UWES) for measuring work engagement of employees. According to them the term engagement comprised of three dimensions: 1) Vigor, 2) Dedication, and 3) Absorption. From all of these three dimensions only the dimension "dedication" have been adopted on the bases of stakeholders' institutional engagement i.e. To me, my job is challenging representing engagement of faculty member with the institution and the other two dimensions (Vigor and absorption) considered irrelevant as they are exhibiting the personal traits of the teachers like When I get up in the morning, I feel like going to work (vigor) and When I am working, I forget everything else around me (absorption).

### **Student Engagement**

Schaufeli et al. (2001) have introduced the Utrecht Work Engagement Scale (UWES) in two versions: 1) Employee Version and 2) Student Version. For measuring the students' engagement with their institution, Utrecht Work Engagement Scale (UWES) student version has been adopted. This version of construct also contain

three dimensions 1) Vigor, 2) Dedication, and 3) Absorption but for the purpose of this study only one dimension has been chosen/adopted that is 'dedication' on the bases of its items which are related to institutional engagement i.e. I find my studies full of meaning and purpose (dedication) rather than personal engagement i.e. When I'm doing my work as a student, I feel bursting with energy (vigor); I am immersed in my studies (absorption).

## **Parents Engagement**

Norwegian Directorate for Education and Training (2011) has developed the "Parents Survey Questionnaire" which has been adapted for the purpose of this study. To measure parents' engagement with the institution the third section of this questionnaire containing two items has been adapted which is "information to and from the school". The reason for choosing only a specific section of this questionnaire is that the information which is required for the purpose of this study is related with the parents engagement with the institution of their child which is only provided by this section and the remaining sections are addressing some other aspects of parents involvement which are irrelevant in the case of present study.

## **Industry Engagement**

"WIL Industry Engagement Survey" has been formulated by the Australian Collaborative Education Network (2016) for the purpose of ensuring those resources which meet the needs of industry and community partners. This survey has identified five key areas in which employers find lack of resources which are challenging for host organizations (universities) i.e. 1) Preparation of students and host organization staff, 2) Supervision and providing feedback to students, 3) Student assessment, 4) Developing partnerships with educational institutions, 5) Different types of WIL and their benefits.

After critical evaluation of all the five areas which may be a challenge for academia as per the WIL Industry engagement survey, only two has been adapted for measuring industry engagement which are 1) Student Assessment and 2) Developing Partnerships as these are fulfilling the objective of universities engagement with the industry which is one of the objectives of this study. Other areas are considered irrelevant for this study as they are measuring some other phenomenon rather than industry engagement and the adapted two areas are fully fledged covering the understudy domain.



## Alumni Engagement

According to Radcliffe (2011) very little research has been conducted on the alumni engagement and have not been found widely. Moreover, no specific scale has been developed till now to measure this aspect of engagement. However, Radcliffe (2011) has measured the alumni engagement via policy capturing approach and has developed an alumni engagement score by taking survey data of Valley University alumni whose administrative staff has maintained all the record of their alumni. But the developing countries faces problems in conducting research as they lack data on virtually all aspects of higher education (Kapur & Crowley, 2008). Thus it has become essential to develop a construct which would measure alumni engagement in a particular setting. So the study tried to propose a construct which could measure the alumni engagement and for this purpose we have created indirect psychometric questions by taking information from the websites of the local universities. Afterwards these indirect psychometric questions which are predicting alumni engagement have been validated by the four field experts who gave their valuable comments and suggestions for ensuring face validity of the questionnaire (Hardesty & Bearden, 2004).

Table 1: Summary of LES Evolution

| Variable            | Construct Title                      | Author   | Year | No of items | No of items taken | Adapted/ Adopted |
|---------------------|--------------------------------------|--|------|-------------|-------------------|------------------|
| Teachers Engagement | Utrecht Work Engagement Scale (UWES) | Schaufeli et al.                                 | 2001 | 17          | 5                 | Adopted          |
| Students Engagement | Utrecht Work Engagement Scale (UWES) | Schaufeli et al.                                 | 2001 | 17          | 5                 | Adopted          |
| Parents Engagement  | Parent Survey Questionnaire          | Norwegian Directorate for Education and Training | 2011 | 12          | 2                 | Adapted          |
| Industry Engagement | WIL Industry Engagement Survey       | Australian Collaborative Education Network       | 2016 | 31          | 3                 | Adapted          |
| Alumni Engagement   | Alumni Engagement                    | Hassan, Atif & Bashir, Rizwana                   | 2018 | 2           | 3                 | Created          |

## RESEARCH METHODOLOGY

The data was collected through self-administered questionnaire technique by using 5-point Likert scale. The respondents of selected organizations were contacted and informed about the idea of the research by personal meetings, emails and even through telephonic conversation at the taking appointments.

### Population and Sample

Target population of this study was faculty members, students and alumni of the business schools. Data was collected from public as well as private sector business schools of the country.

### Unit of Analysis

Unit of analysis of this study is institution (business school) and the respondents include Faculty members, students and Alumni. Table 1 describes the itemized list of respondents. Alumni is a very appropriate respondent in terms of learning engagement scale. Alumni has the experience of the entire educational process of the business school therefore, it was the consensus among the experts during the face validity process that alumni can provide the exact measures of the parents' involvement in the educational process based upon their past experiences. Secondly, the researcher has chosen the alumni who are working in the industry therefore, they can provide the measures of industry engagement in their relevant business schools. Thirdly, alumni engagement measure is directly related to their own involvement in the learning engagement process of the business schools.

Table 2: Respondent Details

| Variable            | No of items | Respondent |
|---------------------|-------------|------------|
| Teachers Engagement | 5           | Teachers   |
| Students Engagement | 5           | Students   |
| Parents Engagement  | 2           | Alumni     |
| Industry Engagement | 3           | Alumni     |
| Alumni Engagement   | 3           | Alumni     |

### Sampling Technique

Convenient Sampling technique was used in this research study. The reason for choosing this type of non- probability sampling technique was based on ease of

reaching respondents, time constraints and accessibility to the respondents. So that the more representation in the collected data can be entailed from the company which is big and have more users because it shows that the employees and the organization is more competitive in terms of novelty. Furthermore the employees for data collection were chosen on the basis of convenience and accessibility.

### **Sample size**

Determining an appropriate sample size that represents targeted population is of key importance in quantitative research. Researchers have suggested numbers of ways or rules for selecting a reliable sample size. Moreover, many Online calculators and resources are also available in this regard.

Out of all the most popular rule is to determine sample size against the number of items being analyzed (Hair, Black, Babin, Anderson, & Tatham, 2009; Pituch & Stevens, 2016). It is suggested that every item to be analyzed or measured should have 5 to 10 observations Comrey and Lee (2013) or in other words supported by 5 to 10 respondents (Hair et al., 2009). On the contrary, Pituch and Stevens (2016) in their research study suggested that the number of observations against each variable may range from 2-20 observations . However they have also mentioned in their book that minimum 5 should be taken against each item to be measured.

In multivariate study, the sample size should be many times (preferably 10 times or more) as large as the number of variables in the research. Hair et al. (1998) suggested a sample size of 200 to test a model using SEM, because 200 is a ‘critical sample size’ that can be used in any common estimation procedure for valid results (see Hoelter, 1983). In addition, the standard and complex statistical analysis including structural equation modeling recommends sampling of 200 as fair, and 300 as sufficient (Tabachnick & Fidell, 1996). Based on the references argued above, the researcher considered a sample size of 500 (498) this research work. All these 498 respondents were considered for the purpose of survey connecting objective of the study.

**Table 3: Demography of Business School Respondents**

|      |  | Business School (n = 498) |      |
|------|--|---------------------------|------|
|      |  | N                         | %    |
| Sex: |  |                           |      |
| Male |  | 272                       | 54.4 |

|                  |  |            |      |
|------------------|--|------------|------|
| Female           |  | 226        | 45.6 |
| Marital status:  |  |            |      |
| Single           |  | 165        | 31.3 |
| Married          |  | 339        | 68.1 |
| Other            |  | 3          | .6   |
| Education:       |  |            |      |
| Bachelor degree  |  | 118        | 23.6 |
| Master degree    |  | 308        | 61.8 |
| Doctorate degree |  | 22         | 4.4  |
| Diploma          |  | 50         | 10.1 |
|                  |  | Mean (SD)  |      |
| Age (years)      |  | 31.6 (7.9) |      |
| Tenure (years)   |  | 8.7 (7.5)  |      |

### Psychometric Analyses

The SEM was used to examine the psychometric properties of the LES using AMOS package (Arbuckle, 2011). Goodness-of-fit for the models was assessed using the Chi-square, the Goodness of Fit Index (GFI), the Root Mean Square Error of Approximation (RMSEA), the Standardized Root Mean Residual (SRMR), the Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI). According to methodologists, model fit is attained when the RMSEA and SRMR are .08 or less and the GFI, TLI, and CFI are .90 or greater (Hair, Black, Babin, & Anderson, 2010). Following Anderson and Gerbing (1988), the chi-square difference test was used for the comparison among different models. Two models are considered different if the value of this test is statistically significant.

Table 4. Descriptive Statistics of the LES Items

|                     |  | <b>Business School (n = 498)</b> |         |      |          |
|---------------------|--|----------------------------------|---------|------|----------|
|                     |  | M(SD)                            | Min–Max | Skew | Kurtosis |
| Industry Engagement |  |                                  |         |      |          |

|  |  |            |     |      |       |
|--|--|------------|-----|------|-------|
| I1. Working collaboratively with industry to develop industry-focused assessment.            |  | 4.29 (.58) | 3–5 | –.13 | –.55  |
| I2. Negotiating and maintaining mutually beneficial relationships with Industry.             |  | 4.33 (.59) | 3–5 | –.24 | –.64  |
| I3. Managing difficulties and conflicts which arise in the university-industry relationship. |  | 4.21 (.63) | 2–5 | –.44 | .45   |
| Parents Engagement   |  |            |     |      |       |
| P1. The university informs parents about their child’s development in studies.               |  | 4.42 (.55) | 3–5 | –.18 | –1.02 |
| P2. Parents inform the university about their child’s development in studies.                |  | 4.44 (.55) | 3–5 | –.27 | –.97  |
| Alumni Engagement  |  |            |     |      |       |
| A1. Alumni are closely linked with the university.   |  | 4.20 (.63) | 2–5 | –.39 | .24   |
| A2. Administration offices keep accurate and retrievable alumni record.                      |  | 4.13 (.60) | 2–5 | –.23 | .35   |
| A3. The institution arrange alumni networking events regularly.                              |  | 4.31 (.62) | 2–5 | –.37 | –.39  |
| Teacher Engagement   |  |            |     |      |       |
| T1. To me, my job is challenging.  |  | 4.41 (.62) | 2–5 | –.60 | –.32  |
| T2. My job inspires me.  |  | 4.38 (.59) | 2–5 | –.39 | –.34  |
| T3. I am enthusiastic about my job.  |  | 4.17 (.62) | 2–5 | –.27 | .19   |

|  |  |            |     |      |      |
|--|--|------------|-----|------|------|
| T4. I am proud of the work that I do.                      |  | 4.20 (.64) | 2–5 | –.43 | .37  |
| T5. I find the work that I do full of meaning and purpose. |  | 4.10 (.58) | 1–5 | –.26 | 1.41 |
|  |  |            |     |      |      |
| Student Engagement   |  |            |     |      |      |
| S1. To me, my studies are challenging.                     |  | 4.12 (.62) | 2–5 | –.19 | –.05 |
| S2. My study inspires me.                                  |  | 4.21 (.60) | 3–5 | –.12 | –.45 |
| S3. I am enthusiastic about my studies.                    |  | 4.15 (.58) | 3–5 | –.01 | –.16 |
| S4. I am proud of my studies.                              |  | 4.00 (.61) | 2–5 | –.10 | .02  |
| S5. I find my studies full of meaning and purpose.         |  | 4.21 (.54) | 3–5 | .11  | –.16 |

### Descriptive Analysis of the LES Items

Table 2 presents the LES items and the related descriptive statistics. In order to determine normality, statistical software generally set the values of skew and kurtosis to zero for a normal distribution (Byrne 2010; Hair et al. 2010). A distribution departs from normality when its skew and kurtosis are positive or negative. According to DeCarlo (1997), when data is not normal, skew impacts the tests of means and kurtosis affects the tests of variance. There seems to be a lack of consensus over the clear cut threshold for deciding the extent to which departure from normality becomes a serious threat to the validity of results. According to Meyers et al. (2006), researchers may consider data to be sufficiently normal if the values of skew and kurtosis fall within the range from +1.0 to –1.0. In the case of covariance-based SEM, where larger sample sizes are usually required to produce reliable results, researchers recommend that the values of skew and kurtosis should be less than 2 and 7, respectively (Byrne 2010; West, Finch & Curran 1995). Some researchers also suggest that non-normality has detrimental effects only in small samples and this effect diminishes effectively for the sample size of 200 or more (Hair et al. 2010). Thus, skew and kurtosis for both country samples in this study were moderate and did not affect the validity of the results presented here.

## Scale Reliability

The internal consistency reliabilities of the LES pertaining to dataset are presented in Table 3. It can be noted that the internal consistency reliability for overall learning engagement and its three subscales ranged from .88 to .96, which were well above the threshold of .70 (Nunnally& Bernstein, 1994) and, thus, indicated good reliability of the LES for Business Schools.

Table 5. Alpha Reliabilities and Pearson Correlations among the JES Subscales

|                        | <b>Learning Engagement Scale</b> |
|------------------------|----------------------------------|
| 1. Industry engagement | .96                              |
| 2. Parents engagement  | .89                              |
| 3. Alumni engagement   | .91                              |
| 4. Teacher engagement  | .88                              |
| 4. Student engagement  | .95                              |

\*\*\*  $p < .001$ .

## Factor Structure of the LES

In order to test for the convergent validity of the LES, factor loadings of each item were computed for both countries. Factor loading is a statistical estimate representing the relationship between a factor (latent construct) and its respective indicators (observed variables), and is generally interpreted in terms of a standardized regression coefficient (Kline 2011). Factor loading scores range from  $-1.0$  to  $+1.0$ . According to Anderson and Gerbing (1988), the factor loading score of a measurement item should be greater than twice its standard error to make the factor loading significant. The most commonly used threshold for a factor loading is .70, and factor loadings above this value indicate high association between the factors and indicators (Hair et al. 2010).

Table 4 shows that factor loadings of all items of the LES on business school data were above the threshold of .70 and significantly ranged from .72 to .86 ( $p < .001$ ). These results indicated that the LES achieved sufficient convergent validity for business schools.

Table 6. Factor Loadings of the LES Items

| Factor Loadings  |                           |
|--|---------------------------|
|  | Learning Engagement Scale |
| Industry Engagement  |                           |
| I1. Working collaboratively with industry to develop industry-focused assessment.            | .83***                    |
| I2. Negotiating and maintaining mutually beneficial relationships with Industry.             | .72***                    |
| I3. Managing difficulties and conflicts which arise in the university-industry relationship. | .86***                    |
| Parents Engagement   |                           |
| P1. The university informs parents about their child's development in studies.               | .82***                    |
| P2. Parents inform the university about their child's development in studies.                | .78***                    |
| Alumni Engagement  |                           |
| A1. Alumni are closely linked with the university.   | .82***                    |
| A2. Administration offices keep accurate and retrievable alumni record.                      | .84***                    |
| A3. The institution arrange alumni networking events regularly.                              | .82***                    |
| Teacher Engagement   |                           |
| T1. To me, my job is challenging.  | .85***                    |
| T2. My job inspires me.  | .86***                    |
| T3. I am enthusiastic about my job.  | .86***                    |
| T4. I am proud of the work that I do.  | .82***                    |



|  |        |
|--|--------|
| T5. I find the work that I do full of meaning and purpose. | .80*** |
|  |        |
| Student Engagement   |        |
| S1. To me, my studies are challenging.                     | .83*** |
| S2. My study inspires me.                                  | .82*** |
| S3. I am enthusiastic about my studies.                    | .83*** |
| S4. I am proud of my studies.                              | .79*** |
| S5. I find my studies full of meaning and purpose.         | .83*** |

Note. \*\*\*  $p < .001$ .

### **CONCLUSION**

In this study, psychometric properties of the LES were examined on the data obtained from teachers, students and Alumni worked in diverse manufacturing and service organizations. Using various psychometric analysis techniques, an analysis was performed with regard to the reliability and validity of the LES.

In conclusion, the present study revealed that the psychometric properties of the LES were encouraging in case of business schools data. Therefore, it is established the LES is a reliable and validated scale to measure the learning engagement of business schools.

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# IMPACT OF REWARDS ON PERFORMANCE OF DIVERSE WORKFORCE IN BANKING SECTOR

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## ABSTRACT

*The focus of the research was performance of employees in relation to rewards because performance is the most important factor in determining the organization's future. The purpose of the study was to analyze how rewards impact performance of workforce in banking sector of Karachi. The methods that used in research were both qualitative and quantitative. The subjects were the employees from a commercial bank of Karachi to which questionnaires were administered. The study identified that there existed a significant relationship between rewards and performance yet the diversity in the workforce had different motivation level for the different rewards. It was concluded that HR while designing and executing the reward system for workforce must consider the challenges of workforce diversity. Covid-19 has changed the environment of work place internationally as well as nationally, so it is mentioned the concept of Basic Income.(UBI).*

**Key Words:** Rewards, performance, workforce diversity, HR, motivation, UBI.

## INTRODUCTION

The effective functioning of an organization depends on how its employees performs their jobs. One essential element in the survival of organization in competi-

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tive market is its employee's performance in the tasks and duties, assigned them to achieve the organizational goals and targets. Organizations all over the world set different strategies and policies to assure the highest performance of all its human resources as they are the real assets of theirs, although other resources such as monetary and capital have their significance but their skillful utilization depends on the human resources.

The performance of an employee is not simply the relationship between inputs and outputs, but it is the outcome of all its efforts utilized in the accomplishment of the assigned duties. From the performance of employees, we determine the performance of the organization; hence it is significant in deciding the future of the organization.

All organizations work on the improvement and management of their employees' performance, they design different methods and devise certain instruments for measuring, monitoring and improving their performance. The reward is one of the instruments that every organization operates to elevate the performance of employees. The rewards are extrinsic (financial) and intrinsic (non-financial) former involves wages, bonuses and other tangible incentives, later includes intangibles like recognition, achievement, challenging jobs etcetera.

The organizations in the global era are dealing with diverse workforce. Globalization has intervened to local organizations which causes diversity in the workforce of the organization hence, satisfying and motivating each employee has become difficult for the human resource professionals. Diverse workforce is the employees from different cultures, race, age, ethnicity, gender, language and other intangibles like these. Each country has its own culture and values the HR professionals must understand what can persuade its workforce towards performance, "it is observed that workers in China gain low level of motivation through recognition and praise, while it is evident that workers in North America get highly motivated by praise". (Worldatwork, 2010).

HR with line managers can communicate and influence employees about the rewards program. They can positively reinforce the talent towards the higher performance. (McMullen & Stark, 2008).

Similarly, in Pakistan every organization work hard to minimize the turnover and improved performance of their employees. Due to economic conditions women in Pakistan also came out to support their families. Karachi is the biggest cosmopolitan city of Pakistan absorbing so many people in it belonged to different cultures and ethnicities making the workforce diverse in organizations. It is the financial and commercial hub of Pakistan comprised of many economic and industrial sectors. The

banking sector is the largely expanding business in Pakistan that has widened its area all over the country.

The rewards are motivators, but it varies employee to employee a reward that motivates a particular employee may not motivate others. The rationale for this research lies in the working of the rewards that how rewards help in performance management of workforce in banks. As bank is one of the institutions that deal with so many customers and providing services to them, so it is really important that banks' employees are motivated enough to give high level of performance and satisfied their customers.

Covid-19 has changed the environment of workplace internationally as well as nationally, so it is mentioned the concept of basic income (Eikhof, 2020).

Hence the objectives of this research are:

1. To identify how strategic rewards motivate workforce performance
2. To analyze right rewards for employees in different job levels, age and gender

## **Company Profile**

Bank Alfalah Ltd incorporated as public limited on the June 21st, 1992 under Companies ordinance 1984. The formal operations of banks commenced in November 1997. The bank is operated his commercial and banking services as defined in Banking Companies Ordinance,1962. The Bank is currently operating through various branches in Pakistan, Bahrain, Bangladesh & Afghanistan, with the registered office at B.A. Building, I.I. Chundrigar Karachi.

The performance management of the bank is responsible for the improved performance of the bank and its staff. It also works for maintaining the good relationship between employer and employee. It provides career development opportunities to the staff, awards and bonuses, promotions. To retain the top talent bank used strategies like job rotation, career counseling, different rewards and recognition schemes etc.

## **Literature Review**

The performance of the employees is a systematic process through which organization achieves aims and objectives of its mission statement. The process involves three major elements; inputs, throughputs and outputs. Employees start the process by transferring their skills and knowledge in the form of inputs to the system which further go through the human resources activities that converted these inputs into the

outputs (Shields, 2007).

Moorhead and Griffin (1989) defined performance as “the total set of job-related behaviors employees engage in” (p.154). It is more than the productivity of an employee; performance cannot only be determined through the results of the duties and tasks it rather involves activities which not only enhance the efficiency of employee but also raise the overall productivity of the organization.

Employee performance embraces many factors in it which are interrelated and interdependent to each other such as needs, skills, motivation, satisfaction etc. Moorhead & Griffin (1989, p. 103) defined motivation as “the forces that cause people to behave in certain ways.” Employees perform their jobs to get something out of it which are the outcomes of their efforts.

The outcomes are hidden in the jobs of employees in the form of rewards; the pay or salary merely cannot be acknowledged as rewards but the term is more than that and known as a total reward approach that refers to “all forms of returns- direct and/or indirect, short-term and long term, financial as well as non-financial – that employees receive as part of their employment relationship” (Baeten, 2004, p. 216).

Organizations used the reward system as an important tool in order to retain its employees and to attract applicants in future (Baeten, 2004). Similarly, if we take this in a practical sense it suggests that the reward system used by organizations must be capable to provide answer to the employee’s questions of ‘why join?’, ‘why stay?’ and ‘why bother?’” The CIPD Reward system involved all the things from pay, incentives to decision making activities, appreciation, praise and recognition etc. The rewards are categorized by different authors into extrinsic and intrinsic which made employee either extrinsically motivated or intrinsically motivated.

Ajila & Abiola (2004) conducted the research at bank of Nigeria identified that extrinsic rewards had greater influence on workers’ performance, they also recognized that employees’ showed poor performance and less commitment when they are not rewarded.

Motivation is one of the prerequisites of the performance. Different theories of motivation have been developed to examine the employee behavior towards job, such as equity theory presented by J. Stacey Adams as cited in Moorhead & Griffin (1989). According to this theory equity has defined as a belief of being treated fairly in comparison to others and inequity is unfair treatment in relation to others. The process of equity theory emphasizes on the self-evaluation of employee with respect to the input / outcome ratio which further leads to evaluation of other (other employees in an organization) after the evaluation person compares the input/outcome ratio of both the



self and comparison-other which results in the feelings of either equity or inequity.

If a person feels his comparison-other gets more outcomes because he is hard worker, then his higher ratio would be acceptable but if the ratio of comparison-other is disproportionate to the inputs it leads to the feeling of inequity. Equity motivates person to continue the same level of performance unless his input/outcome ratio never change. And to reduce inequity certain methods could be used which can have both positive and negative impacts. Such as an option “change inputs” may lead to the less efforts or low-quality work by the employee. “If a person feels being under rewarded, she may decrease her effort and vice versa” (Moorhead & Griffin, 1989, p. 136).

Another theory of motivation was presented by Victor Vroom known as expectancy theory. The process of theory started with the effort which results in performance which is the function of environment, ability and effort. Performance then resulted into different outcomes embracing certain valences in it. The theory asserts on linkages between above stated features; effort-to-performance expectancy described that a person must feel that his effort will lead to higher levels of performance and his performance will lead to certain outcomes such as pay or recognition, this shows performance-to-outcome expectancy. The outcomes may possess either positive or negative valences (value of the outcome). But for the motivated behavior the sum of all valences should be positive.

The theory has later been extended by Lyman W. Porter and Edward E. Lawler which is known as a Porter - Lawler model. It is different from its predecessor; the model has included role perception, traits and ability as well in it. “The model has suggested that high levels of performance may lead to the satisfaction not the other way around.” (Griffin, 1989, p. 141) In this model role perception, ability and traits, and effort together determined the performance that resulted into rewards which can be either intrinsic or extrinsic. A person then evaluates those rewards by using social comparison method and if they are equitable he feels satisfaction and this determined his future performance. Apart from the complexity of theories they have been implemented by many researchers and proven their practicality.

Moreover, Fredrick Herzberg in 1960s identified in his research that workers affected by two different sets of factors which determined dissatisfaction and satisfaction in two different dimensions. He identified hygiene factors (supervision, working conditions, interpersonal relationships, pay and security and company policies) which when used on workers the feeling of dissatisfaction leads to no dissatisfaction. Besides that, he has identified another set of factors which motivated or satisfied workers known as motivation factors which includes achievement, recognition, the work itself, responsibility and advancement and growth. That means not every single

worker can be motivated by same factors.

Rewards are not same for all the employees; it varies because of age, gender and culture. According to Ron Lloyd of Hewitt associates Canada “The new workforce will be the most diverse in history in terms of age, gender, ethnicity and lifestyle. There will be an unprecedented number of generations at work at the same time. And women, who have been entering the workforce at an increasing rate, will continue to do so” (p. 11).

In organizations there existed different age groups such as boomers; (born 1946-1964), Generation X (born 1965-1981) and Generation Y (born 1981-2001). According to a research by global human resource association Worldatwork (2010) identified that generational differences were not considered by 56 percent of the organizations while designing the reward programs. This implies that the importance and evaluation of needs of different generations and were not realized by the organization while providing them the rewards.

The managers need to understand the different work styles, expectation, performance goals and time need of employees to create a high impact multigenerational rewards strategy for the fourth generation that make up today’s workforce (Irvine, 2010, p. 64).

The implementation and execution of reward system are the vital role played by HR. They with line managers can communicate the reward strategies to the employees and reinforce or persuade them towards organizational goals. According to CIPD the importance of line managers in communicating and delivering the reward policies made by HR often ignored by many organizations. Employees can perform better when goals and their outcomes are clear to employees and they understood what is expected from them. HR can have many reward instruments which when implemented may generate the desired results in performance such as working environment, recognition, training and development, pay and benefits etc (McMullen & Stark, 2008).

By reviewing the literature following hypotheses were developed.

H1: There is a significant relationship between rewards and performance

H2: Motivation for different rewards varies employee to employee

## **RESEARCH METHODOLOGY**

To conduct the research the primary data was collected through questionnaires

and interviews and secondary sources were being studied that involved academic journals, case studies, which further lead to content analysis of the literature.

The subjects of the research were employees of bank, 38 employees of a commercial bank of Karachi were selected by using the convenience sampling technique. Different departments were approached to which questionnaires were administered. Convenience sampling is a nonprobability method, this means that subjects are chosen in a nonrandom manner, and some members of the population have no chance of being included.

The research instrument used in the research was a questionnaire which was divided into two parts. Part one was expected to provide answers to the number of years employees had worked with the organization, their gender and other demographics. Part two of the questionnaire was to elicit information on reward system, their benefits to employees and how they perceived different rewards.

## DATA ANALYSIS AND FINDINGS

Table 1: Age of the respondents

| Age        | Frequency | Percentage |
|------------|-----------|------------|
| 20 or less | 0         | 00.0       |
| 21 – 30    | 21        | 55.0       |
| 31 – 40    | 11        | 29.0       |
| 41 – 50    | 4         | 11.0       |
| 51 – above | 2         | 05.0       |
| Total      | 38        | 100        |

55 % of the respondents' age grouped in between 21-30 years which showed the majority of the sample, 29% in between 31-40, 11% 41-50 and 5% were grouped into age 51 or above respectively.

Table 2: Gender

| Gender | Frequency | Percentage |
|--------|-----------|------------|
| Male   | 25        | 66.0       |

|        |    |      |
|--------|----|------|
| Female | 13 | 34.0 |
| Total  | 38 | 100  |

Male employees made the majority with 66% and 34% of employees were female

Table 3: Marital status of respondents

| Marital Status | Frequency | Percentage |
|----------------|-----------|------------|
| Single         | 18        | 47.0       |
| Married        | 20        | 53.0       |
| Total          | 38        | 100        |

As table above exhibits that 47% of the respondents were single, and 53% were married.

Table 4: Job experience

| Job Experience      | Frequency | Percentage |
|---------------------|-----------|------------|
| Less Than 1 Year    | 5         | 13.0       |
| 1 Year - 5 Years    | 7         | 18.0       |
| 6 Years - 10 Years  | 11        | 29.0       |
| 11 Years - 15 Years | 8         | 21.0       |
| 16 Years - 20 Years | 3         | 08.0       |
| 21 Years - Or above | 4         | 11.0       |
| Total               | 38        | 100        |

29% of the respondents had experience of 6-10 years, 21% got 11-15 years and 18% were 1-5 years experienced. 10% worked for 21years or above and 13% have experienced less than 1 year and 8% worked 16-20 years respectively.

The respondents asked to answer that how rewards motivate them and select one of the outcomes. The following table shows the results.

Table 4.5:

*Impact of Rewards on Performance of Diverse Workforce*

| Reward outcomes      | Frequency | Percentage |
|----------------------|-----------|------------|
| Improved Performance | 23        | 61.0       |
| Increased Loyalty    | 5         | 13.0       |
| Both                 | 8         | 21.0       |
| Other                | 2         | 05.0       |
| Total                | 38        | 100        |

As can be seen in table that 61% respondents believed that the rewards improved their performance and 13% get motivated towards loyalty, while 21% considered that rewards' motivation worked on both the variables. And 5 % believed that other variables worked on them when they get motivated by rewards.

Moreover, the respondents were asked to rate the different reward tools which can motivate their performance by using the scale; completely Disagree 1 Disagree 2 Neutral 3 Agree 4 Completely Agree 5. The rewards used as variables were 1) pay and benefits, 2) promotion, 3) achievement; self expression; meaningful work, 4) employee recognition and 5) career development.

Table 4.6:

| Reward Tools                                  | Completely Agree | Agree | Neutral | Disagree | Completely Disagree | Percentage |
|---|------------------|-------|---------|----------|---------------------|------------|
| Pay & Benefits                                | 21%              | 66%   | 10%     | 3%       | 0                   | 100%       |
| Promotion                                     | 39%              | 21%   | 30%     | 10%      | 0                   | 100%       |
| Achievement; Self Expression; Meaningful Work | 45%              | 32%   | 18%     | 5%       | 0                   | 100%       |
| Employee Recognition                          | 30%              | 39%   | 21%     | 10%      | 0                   | 100%       |
| Career Development                            | 30%              | 47%   | 18%     | 5%       | 0                   | 100%       |

The table above shows the percentage of rate of agreement to disagreement of employees to the reward tools that can motivate them towards performance.

H1 There is a significant relationship between rewards and performance

Different researchers have identified that there existed a positive relationship between rewards and performance, similarly this research also concluded that rewards motivate employees towards performance as 61% of employees believed that performance improved by rewards (see table 4.5). Moreover, it was identified that most of the employees were agreed and completely agreed to the reward variables that cause motivation to perform. Pratheepkanth (2011) identified in his research at bank of Sri Lanka that employee motivation is directly proportional to the rewards when level of rewards increases the motivation also increases, he found the positive correlation between rewards and performance consistency achieved.

Similarly, Baron (1983) as cited in Imran, Khan & Farooq (2010) recognized in his work “that not only motivation can influence performance, but performance can also influence motivation, if followed by rewards” (p. 39).

Imran, Khan, & Farooq (2010) found work motivation with respect to the reward variables such as pay, promotion, benefits and recognition. They also identified a direct relationship between rewards and employee’s performance, “better the rewards, the higher the levels of motivation and greater levels of employee performance” (p. 49-50).

## H2 Motivation for different rewards varies employee to employee

One of the objectives of this research emphasized that motivation for each reward is not same for each employee. Rewards perception varies employee to employee due to diversity in the workforce. It was found that overall employees were motivated by the rewards as the rating show only 33% of respondents had shown disagreement to the rewards while no respondent were completely disagreeing with rewards. Yet 45% of respondents were completely agreed that achievement; expression; meaningful work motivated them most towards performance (See table 4.6).

Through interviews and questionnaires, it was identified that the employees who had job experience more than 16 years and aged 41 or above were more motivated with recognition and career development. While those who had 1-5 year experience were less motivated towards those variables and believed that pay and promotion as good motivators.

Similarly, the research conducted by Imran, Khan, & Farooq (2010, p. 49) also identified “employees in the age group 45 and above reported the highest work motivation relative to the reward they received” in banks.

The respondents positively responded that everyone was considered to be rewarded but majority (18 % female & 35% male) were disagreed that right rewards

were being rewarded. Imran et al. (2010) found that females were less motivated by the rewards they received. Women found as committed as men but “companies that routinely don’t offer childcare and flexibility in work scheduling will suffer along with their deprived workers” (Cascio, 1995, p. 74S).

The employees aged 21-30 being energetic inclined towards challenging and meaningful work which was also recognized by World at work (2010). This generation has a deep-seated desire for work to be meaningful and connected to the bigger picture —something larger than merely the task at hand.

Moreover Maslow hierarchy of needs and Alderfer’s ERG also argued that unless the lower level of needs not satisfied a person cannot move towards the next level. A person who has psychological needs to be satisfied can be motivated towards performance by cash, bonus or salary increment. But if manager provided him a challenging job or social environment could not motivate him towards higher performance. Hence it is approved from the above findings that the motivation for rewards varies employee to employee.

## **DISCUSSION**

From hypotheses 1 this study has identified that there existed a positive relationship between rewards and performance, several other studied done in the past approved them too. As said earlier that motivation is one of the prerequisites of performance, yet the rewards are the instruments that caused motivation to perform. They are the different rewards that encouraged employees towards higher performance as they fulfilled their needs. It can be concluded that employees are indirectly motivated to the job but directly to the outcomes of it.

From hypotheses 2 it was found that rewards have different impact on diverse workforce, it varies with respect to age, gender & experience. Moreover, it was identified that rewarding in accordance with the need of employees is more important, means right rewards to the right employee.

## **LIMITATIONS**

The research was confined to certain parameters because of limited available data and unavailability of statistical procedures of data analysis. Furthermore, the results and findings could be more accurate and convincing if large sample was used. The motivation of employees measured self-reportedly and this may be more compelling if actual performance data was gathered. However, findings of the research objectives would help banks in improving the reward system and meeting the challenges of rewarding performance of a diverse workforce.

## **CONCLUSION & RECOMMENDATIONS**

It was concluded that the role of HR in designing and executing the reward system become critical. Banks are not free from diversity, there exist so many ethnic groups, cultures in Karachi and women have also entered the market with greater percentage.

HR must take the diversity into account while designing the reward system it should be flexible so that each employee can get an advantage. Flexible working hours, childcare facility and environment to work comfortably would be helpful in motivating performance of women in the workforce. To motivate older workers the HR should identify the job areas where they can utilize their experience and skills more efficiently and considered themselves as updated as their juniors. Hence to get higher level of performance HR must understand the challenges of workforce diversity in rewarding job performances and devising reward system.



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# DETERMINANTS OF CASH HOLDING: EVIDENCE FROM FINANCIAL AND NON-FINANCIAL FIRMS LISTED ON PAKISTAN STOCK EXCHANGE

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## ABSTRACT

*Corporate cash holding involves both trade-off and packing order for cost and benefit analysis. The purposes of this study is to investigate the determinants of cash holding for financial and non-financial firms listed at Pakistan Stock Exchange as KSE-100 index. This study takes secondary data of 74 non-financial firms and 14 financial for the period of 2013-2019. Moreover, this study take cash holding as dependent variables while determinants of cash holding are Leverage, Firm Size, Cash Flow to Assets, Net Working Capital, Investment in tangible and intangible assets, this study takes three control variables which are PV-GDP, MCAP-GDP, TV-GDP, based on the diagnostic test and recommendation of Hausman test, results of Random Effect Model reveled that, leverage has positive and insignificant effect on cash holding, firm size were found negative and significant, cash flow to assets were found positive and significant, investment in tangible and intangible assets has positive, negative significant and insignificant effect on cash holding, while NWC were found positive and insignificant, control variables were found positive but have insignificant effect on cash.*

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*At last Dummy variables for comparison were added in model which shows that there exists significant difference between financial and non-financial firms for holding cash level, which suggest that on average both sectors hold different level of cash and cash equivalent. The findings of this study is aligned with trade-off and pecking order theory and previous researcher, moreover the findings of this study suggest that it will be beneficial for company manager, who could employ minimum debt level or use an optimum level of capital structure, in order to deviate the managerial conflict, such study is also benefited for shareholders, creditors and investors.*

**Keywords:** *Karachi Stock Exchange, Net working capital, Private Credit to GDP, Market Capitalization to GDP, Total Turnover to GDP.*

Cash holding and academic literature on such area is subjected to the field of finance and obtained a great deal which is considering in financial area, and it comes under the umbrella of business administration. Practically due to nonexistence of fractional markets where security is traded and intern such companies directly cannot collect funds, persistently required it for financial decision through which they can move forward to external sources for rising funds, such dilemma cross question mark to some question which need to be address liked, why such firms are in need to main cash? Is there any optimum level for cash holding? Does such firm hold to much cash who are top traded rather than low traded companies? For answering such question many researchers strived to make such decision which can answer and subjected to such dilemma. Such work can be dated back to the work of Keynes (1936), who proposed two stages and main benefits for cash holding for such firms, it can be traced with the low cost transaction for firms who are not in stage to liquidated their assets when they are unable to make payment to their stake and stock holders or facing such buffer of contingences planning. Such areas can also highlight the work of Miller and Orr (1966), who proposed a model for trade-off which determined the optimum level of cash holdings for such firms through which they can maintained the trade-off between balancing of cash run out and the cost which bear by such firms for holding non-interest cash.

Priory, pertaining to such dilemma, Pecking order theory for such firms, contend that targeted cash and optimum level of does not exist in real since, while such

firms are required to minimized the asymmetrical information in accessing the cost of external financing, he also argued that firms can use retained earnings for their financing of investment projects, and obtain their debt at last, and instead of earlier payment and cash usage of debt holder, they can use their equity in their investments (Myers, 1984).

Such work can also traced back to the work of Jensen (1986), who present Free cash Flow theory for such firms, which postulates that sometimes the manager tries to make self-interest instead of maximizing the firm value and shareholder's wealth, such kind of fiduciary obligation create a problem between manager and shareholder's we openly called it Agency Problem, if such kind of problem persist it needs to be address, such theory stated that managers are required to hold cash and impair their power over the investment and other decision made by the firms.

Moreover, Cash Holding has its own cost and benefit, while the basic aim and purpose of cash holding by firms is reduced the chances of financial shocks which faced by such firms in contingent situation (John, 1993). And minimizing transaction costs (Keynes, 1936). Although Denis and Sibilkov, (2010) stated that in such circumventing situation face by such firms and allow external sources for financing the investment projects and holding to many cash can increase the efficiency for such firms in financial constraints. The benefit of holding to many cash by such firms reserves the act of buffering to commensurate in future financial crisis, it can also reduce transaction costs for liquidating assets and the cost associated with funds which rise by firms from external sources (Mulligan, 1997). Although, Foley et al., (2007), concluded that holding too much cash by firms can create a problem of double taxation for firms who traded internationally, it can also subject the firms for tax payment in host country especially when truncating their foreign income in home currency.

Sometimes too much cash holding leads to in efficiency, because of it may some companies can have lost investment prospects, certain firms are also required to hold cash for such motives like precautionary, tax motive and agency motive as well. POT advocates that firms are tended too much on internal financing rather than external financing epically in decision of investment (Myers, 1984). On the contrary (Jensen, 1986) pointed out in free cash flow theory, that when manager have more excess to cash, then they are not required to go for external source of financing, due to this sometimes they go for such project which have negative NPV, in term it may adversely affect Shareholders value. Various studies suggest that there exists an optimum level of cash for such firms to hold (Olper et al., 1999; Ozkan & Ozkan, 2004; Bates et al., 2009; Rehman & Wang, 2015). In emerging market like Pakistan, studies on such topic had been conducted by majority of researchers, Azam and Shah, (2011) concluded that FC has been face by Pakistani firms in shape of high dividend payout

ratio, such issue restrict them to invest in fruitful projects, Age of firm were also found to be a major factor when making investment decision.

Since Pakistan has developing country its economies, business and political structure has gain a lot of search from researcher around the world, as discussed earlier cash holding and maintaining an optimum level of cash in order to deviate the future financial constraints it become major challenge for firms especially operated in developing economies country like Pakistan, several studies had been conducted by many researcher in the context of Pakistan on such problem like Azam and Shah (2011), Ghulam Ayehsa Siddiqua and Ajid ur Rehman (2018), who concluded that firms who are financial constrained firm hold more cash faster than firm those firms which are financially unconstrained. This study will have intended to investigate determinants of cash holdings and effect of macro level variables on, by providing evidence from financial and non-financial firms listed on PSX as KSE-100 index. Furthermore, this study makes contribution in existing literature in at least two ways, alpha this studies add macro level variable and its effect on cash holding, priory this study also added investment in tangible and in intangible assets as explanatory variables, priory this studies has investigated the mean comparison of cash holding for both financial and non-financial firms on PSX. This study also takes financial sector such as commercial banks on which least literature is available in the context of Pakistan. This study will provide an insight for company manager, investment companies to insure optimum cash level and make investment in fruitful projects.

Rest of the study is organized as followed; section 2 provides the brief articulation on literature review with covering related and supportive theories, relation and linkages between explanatory and exploratory variables, section 3 consist on methodology used in this study with covering variables computation, section 4 consist on result and different diagnostic tests, section 5 consist on conclusion, recommendation, policy implication and direction for future research.

## **Literature Review**

Various studies had been conducted by many researcher on topic like cash holding and cash management in the context of Pakistan and provide evidence around the world, such work can be traced back for review and suggested that firms normally are liked to hold more cash for precautionary motive (Olper et al., 1999; Mikkelson & Partch, 2003) and the efficiency of management to reduce transaction cost (Mulligan, 1997) and maintaining too much cash can lead firms for payment of double taxation specially for a firm operated internationally as it can be marked as multinational companies and subjected to its taxation on transaction cost when exchanging foreign funds into home currency (Jensen, 1986; Harford, Mansi & Maxwell, 2008; Nikolov

Although, Dittmar et al., (2003) conducted a study on such topic and proposed two type of costs, which is linearly associated with firm's cash holding, despite of it they also proposed two prime drives which advanced the benefit and advantage of cash holding, in the first motive they state cost for transaction as and its motive for firms to hold more cash be such firms when the opportunity cost and cost associated with fund rising from external sources are relatively high. In case of asymmetrical information, firms specifically hold more cash for precautionary and preventive measure.

Myers, (1984) stated that according to the financing hierarchy of any firms, no such optimum and targeted level of cash for firms, and optimum level of debt structure exist. There exists an optimum level of cash for which the firms are required to maintain it through which they can maximized their firm value and ensure shareholder's wealth, rather any divergence from such level leads the firm to face downward trend in their firm's value and operation (Martínez-Sola et al., 2013 & Jarrow et al., 2018). There exist an optimum trade-off which portrays optimum link between optimum cash level and such decision made for investment and for CE face by firms during investment and financing hierarchy and such relationship sometimes holds opposite site between these two (Dittmar et al., 2003).

likewise, the work of miller and Modigliani and other researcher stated that, there exist an optimum level of debt structure and leverage which persist a firms to make such decision and create trade-off between the cost which obtained for debt financing, rather any deviation from such trade-off leads the firms to acquire and set new target for leverage (Denis & McKeon, 2012).

Denis, (2011) conduct study and concluded that maintaining to many high leverage ratio substantially deviate the firms to achieve optimum cash level, sometimes the manager do not set optimum leverage level as the first concern of manager to capital structure decision, furthermore they suggested that in short spine of time and cash shortage and crisis, firms are usually go for initial debt browning to curtail and tackle such issue, even they are in above target and optimum debt level, while in surplus of cash level they make payment to debt holder to reduce to retain the pro rata of capital structure.

Likewise, easily access to cash capital market provides such facilities for to fund providers and can also assimilate the fund which immediately to be raised, albeit such firms tended to go for maintaining assets which are less liquid in their reserves. The similarity and maintaining the investor rights and protection in countries, company hold more cash as twice where their rights and well protected, in such scenario

investor cannot forbid manager to hold more cash, further more in investment horizons where optimal opportunity arise the firms hold more cash to avoid such divergence activity where there in short of cash, precautionary motive and cash holding for its also suggest that such risky financing decision also effect firm cash holding level because firms hold too much cash in order to avoid such risky decision and Sucre contingencies planning, and firms save more cash which result from company cash inflow and provide their obligation to finance provider (Harford et al., 2014; Xie et al., 2017).

## **Evidence from Pakistan**

Consequently Azam and Shah (2011) conduct study and found that, more financial constraints faced by Pakistan firms rather firms operated in developed world, such constraints include high dividend payout ratio which in term restricts the firms to invest in fruitful projects, the other constraints is Age of firms which indicate the investment decision taken by old and new firms, firm size, response to earnings and energy crisis are other important constraints which capture the intention of researcher, their findings reveled the positive association between investment and firm size and negative linkage between firm's age, investment and dividend payout, and concluded that dividend payout ratio and firms age are attributes of financial constraints for firms in Pakistan context.

Although Anjum and Malik (2013) conduct study on such topic and provided evidence by taking the data od 345 non-financial listed firms for period of 2005-2012, their results reveled that Size has direct relation with firm cash holding while working capital also shows positive and direct relation, leverage indicate negative response.

Lala Rukh et al, (2015) conduct study on factor effecting cash holding by taking sample of 349 non-financial listed firms for the period of 2005-2012, their results reveled that capital employed and leverage has positive effect on cash holdings, cash flow, size and working capital has positive and significant effect on cash holding, global financial crisis indicate negative and insignificant effect on cash holding for such non-financial firms listed.

Shabbir et al. (2016) conduct study on determinants of corporate cash holding by taking data of non-financial firms for the period of 2004-2012, their study concluded that growth opportunity, firm size and cash flow had positive effect while leverage and liquidity found negative and significant.

Ghulam Ayehsa Siddiqua and Ajid ur Rehman (2018), who concluded that firms who are financial constrained firm hold more cash faster than firm those firms which are financially unconstrained.

## **Trade off Theory**

Static theory indicates that the value of the leveraged and non-leveraged is not similar. Rendering to trade off theory the three factors which are taxes bankruptcy costs and agency costs that affect the company's correction toward an optimum leverage. Ross (2008) says that the firm can maximize their value at the point where the marginal cost of debt and marginal debt give equivalent benefits.

## **Agency Theory**

Jensen and Mackling (1976), Explain the agency cost the two types of conflict theory, that is, between managers and shareholders and between holders of debt and shareholders. Jensen (1986), Stulz (1990) that this problematic can be resolved by reduce the accessibility of free cash flow by employing more debt and by increasing the ownership of the managers in the firm. If corporate governance is a virtuous then lower the agency cost will be.

## **Pecking Order Theory**

This theory suggest that cost of borrowing for to finance their obligation is increasing with asymmetric information, such type of financing usually aroused by firm from three integrated sources, which are internal funds, can capital structure, albeit mostly companies prioritized their investment, like gathering of funds from internal sources, if it is not possible then they switch to debt, lastly they off for equity financing, this theory suggest that business need to draw hierarchy to for better reconciliation.

## **Variable Description and Theoretical Relation**

Table 1: Variable Description and Theoretical Relation

| <b>Variable Name</b> | <b>Relation with dependent variable</b>                               | <b>Computed Sign</b> | <b>Tradeoff-theory</b> | <b>Pecking order theory</b> | <b>Paper findings</b> |
|----------------------|---|----------------------|------------------------|-----------------------------|-----------------------|
| Leverage             | Positive and negative (Diamond, 1991; A. Ozkan & N. Ozkan, N., 2004). | +/-                  | Positive/negative      | Negative                    | +ve                   |
| Firm Size            | Positive (Bates, Kahle,& Stulz, 2009).                                | +/-                  | Negative               | Positive                    | -ve                   |



|                     |   |   |          |          |     |
|---------------------|---|---|----------|----------|-----|
| Cash flow           | Afza & Adnan, 2007; Al-Najjar and Belghitar, 2011; Olper et al., 1999)                                | - | Negative | Positive | +ve |
| Net working capital | Ali & Yousaf, 2013; Bates et al., 2009; Ferreira & Vilela 2004; Gill & Shah, 2012; Olper et al., 1999 | - | Negative | Negative | +ve |

**Research Hypotheses**

The following two hypotheses has been designed from above literature.

H1: Firm level variable has significant effect on Firms Cash Holding.

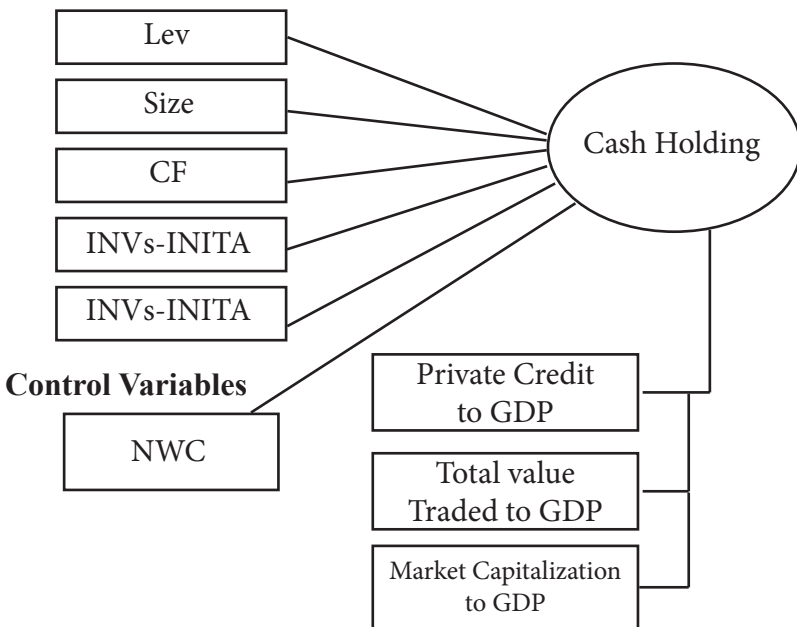
H2: Firms level variable has insignificant effect on Firm’s Cash Holding.

**Fig. 1: Theoretical Framework**

**Independent variables**

**Dependent variable**

**Firm Level variables**



## RESEARCH METHODOLOGY

### Nature of the Study

This research is quantitative in nature, set of 88 firms were taken which are financial and non-financial listed on PSX as KSE-100 index for the period of 2013-2019, selected companies were further classified in two sets, in which 74 are non-financial and 14 are financial such as banks. Moreover, this sample were selected on basis of data availability which is consider as top listed companies and more representative of respective sectors, moreover the financial sector was also added in this study for cash holding comparison.

The selected sample were taken from the following sector, Power generation and distribution, refinery oil and gas exploration companies, technology and communication, fertilizer, transport, chemical, cement oil and gas marketing companies, textile composite, glass and ceramics, cable and electrical goods engineering, pharmaceuticals, synthetic and rayon tobacco, food and personal care products, auto mobile assembler, paper and board, automobile parts and accessories, Miscellaneous, sugar and allied industry, lather and tanneries Woolen and all 14 public and commercial banks.

All the data is secondary and collected from secondary sources while the data for variables computation is extracted from company annual reports published by concerns companies, Financial statement analysis for both sectors were downloaded from State bank of Pakistan and Pakistan stock exchange official website, for the period of 2013-2019, while the data for control variables were taken from World Bank Data base, FRED, Macro trend.

### Variables Description

The following table shows the variable description representation and computation.

Table 2: Variables Description

| Variables                        | Symbol | Description          | Formula                                    | Citation                                     |
|----------------------------------|--------|----------------------|--|--|
| <b><u>Dependent Variable</u></b> | DP     | Exploratory variable |  |  |
| Cash Holding                     | CH     | Exploratory Variable | Cash and cash equivalents/<br>Total Assets | Olper, (1999)<br>Ferreira and Vilela, (2004) |

|                                     |             |                       |  |                                    |
|-------------------------------------|-------------|-----------------------|--|------------------------------------|
| <b><u>Independent variables</u></b> |             |                       |  |                                    |
| Leverage                            | Lev         | Explanatory variables | Total Debt/ Shareholder's equity                                 | Ozkan and Ozkan, (2004)            |
|                                     |             |                       |  |                                    |
| Investment in tangible assets       | Ivst in TA  | Explanatory variables | One year change in value of tangible fixed assets/ total assets  | Sandra Mortal et al., (2016)       |
| Investment in intangible assets     | Ivst in ITA | Explanatory variables | One year change in value of intangible assets/total assets       | Sandra Mortal et al., (2016)       |
| Net working capital                 | NWC         | Explanatory variables | Current assets-current liability- dividend payment/ total assets | Sandra Mortal et al., (2016)       |
| Cash flow to assets                 | CFA         | Explanatory variables | Net cash generated from operation/total assets                   |                                    |
| Firm Size                           | FS          | Explanatory variables | Log of Total Assets  | Scott and Martin (1976)            |
| <b><u>Control variables</u></b>     |             |                       |  |                                    |
| Private credit to GDP               | PC_GDP      | Control variable      | Ratio of private credit to GDP(Pakistan)                         | Djankov, McLeish and Sheifer(2007) |

|                              |        |                  |   |  |
|------------------------------|--------|------------------|---|--|
| Market capitalization to GDP | MC_GDP | Control variable | Ratio of Market capitalization to GDP(Pakistan)   | Dermiguc-Kunt and Levine (1996) and Love (2003) World bank data base |
| Total value traded to GDP    | TV_GDP | Control variable | Ratio of total value of turnover to GDP(Pakistan) |  |
| Dummy variable               | Dummy  | Dummy variable   | Financial firms assigned 1, if not then 0.        | Own computation  |

**Econometric Model**

$$Y_{it} = \alpha + \beta X_{it} + \beta Z_{it} + \beta Y^*_{it} + \epsilon_{it} \dots \dots \dots \text{eq (1)}$$

In the above equation  $Y_{it}$  represent Cash holding for the firm  $I$  with time trend  $t$ , followed by  $X_{it}$  which comprised on set of firm level variable consist on (Leverage, Investment in tangible assets, Investment in intangible assets, Net working capital, Cash flow to assets, Firm Size) for the firm  $I$  with time trend  $t$ . followed the equation  $Z_{it}$  which consist on set of control variables (Private credit to GDP, Market capitalization to GDP, Total value traded to GDP) for level  $I$  with time trend  $t$ . Where  $Y^*_{it}$  represent dummy variable included in the model for cash comparison with firm  $I$  with time  $t$  trend.

**RESULTS AND DISCUSSION**

Table 3: Descriptive Statistics

| Variable     | Obs | Mean  | Std. Dev. | Min     | Max     |
|--------------|-----|-------|-----------|---------|---------|
| Cash Holding | 616 | .096  | .182      | 0       | 1.919   |
| Lev          | 616 | 1.965 | 6.405     | -31.493 | 131.903 |
| FS           | 616 | 7.774 | .811      | 5.51    | 10.639  |
| CFA          | 616 | .108  | .245      | -2.273  | 1.935   |
| INVITA       | 616 | .502  | .508      | .001    | 7.553   |

|             |     |        |       |        |        |
|-------------|-----|--------|-------|--------|--------|
| INV_IITA    | 616 | .017   | .066  | 0      | .811   |
| NWC         | 616 | .301   | .514  | -1.27  | 7.221  |
| MCAP to GDP | 616 | 24.058 | 5.631 | 15.248 | 32.967 |
| PV to GDP   | 616 | 16.864 | 1.12  | 15.589 | 18.83  |
| TV to GDP   | 616 | 28.93  | 2.67  | 25.3   | 33.33  |

Table 3 present the main variables used in this study by applying descriptive statistics which give summary statistics and characterization of data such description is consist on Mean, standard deviation, minimum and maximum value of the data, while looking in to Cash ratio for Pakistani non-financial and financial firm listed on Pakistan stock exchange as KSE 100-index. Cash holding has been observed as 9.6%. looking into the previous result it is found similar with the result of cash ratio by Shah (2011), Shabbir et al., (2016) in Pakistan context. Similar to it Ogundipe et al., (2012) concluded that Nigerian firms on average hold 7% of cash ratio to total assets, however such ratio is low as it is compared with ratio which is hold by developed countries like UK and US, contrary with other result Olper et al., (1999) conducted study and examined that Publicly traded firms is US held 17% of cash ratio, the results may be due to accounting and ratio measuring procedure like in case of cash normalization and marketable securities divided by total assets and deducting cash and marketable securities rather than total assets. While other researcher like Kalcheva and Lins (2007) found in their study that such firms held 16% of cash and cash equivalent to their total assets, and 8.1 % cash ratio was found by (Kim et al., 1998). The standard deviation shows fluctuation of data from mean value, looking in to the mean value of Leverage which is 1.965 which is too high as compared with developed companies as results examined by previous researcher, which suggests that non-financial companies of Pakistan tend to use higher amount of debt, to finance their assets as compared with developed countries, while in study of Shabbir et al., (2016) their examined 55% of leverage. Investment in tangible assets have mean value of .502 which suggest that 50% of investment is made in fixed assets by such firms and it suggest that this much of increase will be made to total assets. Priory Cash flow to assets have mean value of .108, while it has 1.935 maximum and -2.273 minimum value with .245 standard deviation.

Table 4: Correlation Matrix

|           |     |     |     |     |     |     |     |     |     |      |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|

|                  |        |        |        |        |        |       |       |       |       |       |
|------------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| (1) Cash Holding | 1.000  |        |        |        |        |       |       |       |       |       |
| (2) Lev          | -0.054 | 1.000  |        |        |        |       |       |       |       |       |
| (3) FS           | -0.127 | 0.122  | 1.000  |        |        |       |       |       |       |       |
| (4) CFA          | 0.258  | -0.027 | -0.115 | 1.000  |        |       |       |       |       |       |
| (5) INVITA       | -0.047 | -0.050 | -0.315 | 0.140  | 1.000  |       |       |       |       |       |
| (6) INV_IITA     | 0.120  | -0.018 | -0.029 | 0.100  | 0.017  | 1.000 |       |       |       |       |
| (7) NWC          | 0.113  | 0.076  | -0.057 | 0.072  | 0.420  | 0.059 | 1.000 |       |       |       |
| (8) MCAP to GDP  | 0.007  | 0.072  | 0.152  | -0.050 | -0.065 | 0.042 | 0.042 | 1.000 |       |       |
| (9) PV to GDP    | -0.036 | 0.076  | 0.238  | -0.132 | -0.099 | 0.030 | 0.092 | 0.691 | 1.000 |       |
| (10) TV to GDP   | -0.068 | 0.096  | 0.191  | -0.142 | -0.089 | 0.013 | 0.104 | 0.367 | 0.581 | 1.000 |

Table 4 shows the association between dependent variable which is cash to assets ratio in this study of non- financial and financial firms listed at Pakistan Stock Exchange with its key explanatory variables. Leverage has negative correlation with cash holding which means that making too much payment to the debt holder will result catalytic decrease in cash holding for such firms. Cash flow to assets has positive correlation with cash ratio which means that increase in cash in flow from operating will add more cash to cash and cash equivalent for such firms, investment in tangible has negative correlation and intangible assets have positive correlation with cash holding meaning that increase in such explanatory will generate more cash for such firms, net working capital have positive correlation with cash ratio which suggest that decrease in current assets and make payment to debt holder and dividend payment will result decrease in cash and cash equivalent for non-financial and financial firms listed at Pakistan stock exchange. Result of VIF test has all value less than 10 for all explanatory variables which indicate that is no problem of Multicollinearity exist among explanatory variables. For explanatory variables which indicate that no such problem of Multicollinearity exists If VIF value exceeding 4.0, or by tolerance less than 0.2 then there is a problem with Multicollinearity (Hair et al., 2010).

Table 5: Variance Inflation Factor

|                  | VIF   | 1/VIF |
|------------------|-------|-------|
| PV credit to GDP | 2.609 | .383  |

|             |       |      |
|-------------|-------|------|
| MCAP to GDP | 1.978 | .505 |
| TV-GDP      | 1.589 | .629 |
| CFA         | 1.439 | .695 |
| V           | 1.364 | .733 |
| FS          | 1.192 | .839 |
| Indicator   | 1.075 | .931 |
| NWC         | 1.039 | .963 |
| Lev         | 1.038 | .964 |
| INVs INITA  | 1.019 | .982 |
| Mean VIF    | 1.434 | .    |

Table 6: Individual Result of Both Sector

| Individual Result of Financial Sector |              |         |         |         | Individual Result of Non- Financial Sector |        |         |         |
|---------------------------------------|--------------|---------|---------|---------|--|--------|---------|---------|
| Cash Holding                          | Coef.        | St.Err. | t-value | p-value | Coef.                                      | St.Err | T-value | P-value |
| Lev                                   | -.02         | .011    | -1.89   | .062    | -.001                                      | .001   | -1.30   | .1941   |
| Size                                  | -.254        | .058    | -4.36   | 0       | -.031                                      | .009   | -3.41   | .000    |
| CFA                                   | .163         | .056    | 2.93    | .004    | .0179                                      | .028   | 6.20    | .000    |
| INVITA                                | .395         | .691    | 0.57    | .569    | -.007                                      | .015   | -4.62   | .000    |
| INVIITA                               | -.917        | .287    | -3.20   | .002    | .228                                       | .105   | 2.16    | .0306   |
| NWC                                   | .672         | .077    | 8.74    | 0       | .062                                       | .015   | 4.14    | .000    |
| MCAP to GDP                           | -.001        | .004    | -0.12   | .908    | .001                                       | .001   | .821    | .4116   |
| PV to GDP                             | .062         | .025    | 2.45    | .016    | -.001                                      | .009   | -.101   | .918    |
| TV to GDP                             | -.003        | .008    | -0.39   | .695    | -.003                                      | .003   | -1.10   | .2716   |
| Constant                              | 1.392        | .552    | 2.52    | .014    | .425                                       | .134   | 3.15    | .001    |
| R Square                              | 76%          |         |         |         | 12%  |        |         |         |
| F value                               | 35.12(0.000) |         |         |         | 9.78(0.000)                                |        |         |         |

Results of individual models, show that leverage has negative and insignificant

effect on cash holding in both sector, while size have negative and significant effect on cash holding in both sector, cash flow to assets have positive and significant effect on cash holding in both sectors, while investment in tangible assets found positive and insignificant, while it has negative but significant effect on cash holding in non-financial firms, investment in tangible assets found positive, negative but significant in both sector, net working capital have positive and significant effect on cash holding in both firms, private credit to GDP has positive and significant on cash holding in banking sector while it has insignificant in non-financial firms.

Moreover, in individual regression results financial sector has 76% explanatory power, which suggest that cash holding is that much explained by determinates. In non-financial sector explanatory power of the model is 12%. Based on the P-value of F statistics, the overall model is statistically significant and valid for forecasting and policy implication.

Therefore, both pecking order and trade-of theories predict negative relation of leverage with cash holdings (Diamong, 1991; Ozkan & Ozkan, 2004). The results in lined with results of other researcher findings like, Afza & Adnan (2007), Ferreria & Vilela (2004), Ogundipe, Salawau, and Ogundpie, (2012), their result concluded that leverage has negative relation with cash holdings. Similarly the result of firm size is also in line with result of Bates, Khale and Stulz, (2009), they argued that due to economies of scale companies are required to hold less amount of cash. Although Mulligan, (2007) suggested that according to trade-off theory and benefit of economy of scale larger firm can earn more profit from it, therefore firm size should have an inverse relation. Similar with the result of Cash flow to assets it also found with the similar outcomes of Afza and Adnan, (2007), Al-Najjar and Belghitar (2011), Dittmae et al., (2003). They concluded that there exist positive and significant relationship between cash flow and cash holdings, and it effect company to hold larger level of cash which is generated from integrated sources.

Table 7: Combined Regression Analysis of the Study

| Variables Name | Fixed Effect Model |         |         |         | Random Effect Model |         |         |         |
|----------------|--------------------|---------|---------|---------|---------------------|---------|---------|---------|
|                | Coeff.             | St. Err | T-Value | P-Value | Coeff.              | St. Err | T-Value | P-Value |
| Cash Holding   |                    |         |         |         |                     |         |         |         |
| Leverage       | 0.01               | .001    | 0.11    | .909    | 0.0178              | .001    | 0.01    | .991    |
| FS             | -0.59              | .01     | -5.79   | .000*** | -.063               | .01     | -6.68   | .000*** |
| CFA            | .08                | .021    | 3.74    | .000*** | .093                | .021    | 4.42    | .000*** |



|                |       |      |       |         |       |      |       |         |
|----------------|-------|------|-------|---------|-------|------|-------|---------|
| INVs-in INTA   | .293  | .09  | 3.25  | .000*** | .272  | .086 | 3.15  | .002*** |
| INVS-TA        | .02   | .018 | 1.10  | .27     | .005  | .016 | 0.28  | .778    |
| NWC            | .007  | .016 | 0.42  | .677    | .02   | .015 | 1.40  | .162    |
| MCAP-GDP       | .001  | .001 | 1.18  | .238    | .001  | .001 | 1.22  | .222    |
| PV-cred to GDP | .006  | .006 | 0.97  | .334    | .006  | .006 | 0.93  | .354    |
| TV-GDP         | -.002 | .002 | -1.15 | .253    | -.002 | .002 | -1.20 | .23     |
| Dummy          | -1.91 | 0.41 | -4.64 | .000*** | -.192 | .039 | -4.87 | .000*** |
| Constant       | .461  | .096 | -4.64 | .000*** | .663  | .103 | 6.46  | .000*** |

**Model Characterization**

H0: If P value is greater >0.05 Random Effect Model is Appropriate

H1: If P value is less < 0.05 Fixed Effect Model is Appropriate

|                       |  |              |
|-----------------------|--|--------------|
| Fitted Model          | Random Effect Model  |              |
|                       | H0 is accepted based on the value of Hausman test(P-value) |              |
| Hausman Test(P-value) | Hausman (1978) specification test                          |              |
|                       | Chi-square test value                                      | Coef. 12.018 |
|                       | P-value  | .212         |
| Observation           | 616  | 616          |
| R <sup>2</sup>        | 15.3%  | 23.7%        |
| F test(P-value)       | 10.317(0.000, Prob>F)                                      |              |

**Interpretation**

In panel data regression model, analysis of leverage has coefficient of 0.0178 with T-value (0.01 < ± 2) along with P- value of (.991 > 0.05) suggest that leverage has positive and insignificant effect on cash holding, Firm Size has coefficient of -.063 with T value (-6.68 > ± 2) along with P-value of (0.000 < 0.05) indicating that firm size has negative and significant effect on firm cash holding, turning to other variable cash flow to assets has coefficient of 0.93 with T-value(4.42 > ± 2) along with

P-value of ( $0.000 < 0.05$ ) which represent that cash flow to assets have positive and significant effect on firm cash holding for non-financial and financial firms. Investment in intangible assets has .272 coefficients with T value ( $3.15 > \pm 2$ ) along with P value ( $.002 < 0.05$ ) which suggest that investment in intangible assets have positive and significant effect on cash holding for selected non-financial and financial firms, similar with coefficient of investment made in tangible assets is .05 with T-value ( $0.28 < \pm 2$ ) along with P-value ( $0.28 > 0.05$ ) which suggest that investment in tangible assets have positive and insignificant effect on cash holding, Networking capital have coefficient of 0.2 with T and P-value ( $1.40 < \pm 2$ , with p value  $.162 > 0.05$ ) which suggest that net working capital have positive and insignificant effect on cash holding, turning to control variables all the control variables has positive but in significant effect on cash holding. Dummy variable has negative coefficient but shows significant difference between cash holding level for both firms.

Moreover, this study has 23.7% explanatory power which suggest that cash holding for selected non-financial and financial firms is explain that much by explanatory variables while the rest or the other variables which is captured by error term included in the model, based on F test (P-value,  $0.000 < 0.05$ ) which is significant and it suggest that the overall model is statistically significant and valid for forecasting

Base on the diagnostic test and recommendation of Hausman test (P-value  $.212 > 0.05$ ), Random Effect model is more appropriate for this study, and hence  $H_0$  is accepted for model selection which is Random Effect model is appropriate.

## **DISCUSSION**

Leverage has insignificant positive effect on the corporate cash holding for non-financial Pakistani firms which is consist with the result of Olper et al. (1999) who concluded that excessive level of debt level to cash ratio increase the probability of bankruptcy chances and because of that companies compelled to hold more cash as compared with other firms who have lower debt ratio to corporate cash holding level, thus this result support tradeoff theory.

Cash flow to assets has positive and significant effect on cash holding which support Pecking order theory which suggest that company choose such type of fruitful investment project which result more cash in cash holdings while excessive outflow from business operation and less cash inflow make lower addition to cash level for such firms, while during cash flow volatility firms are required to hold more cash which in term buffer the chances of insolvency the above result is consistent with previous findings of (Almeida et al., 2004; Ferreira & Vilela, 2004; Ozkan & Ozkan, 2004).

Firm size has negative and significant effect on cash holding, such result is consistent with trade-off theory which suggest that, firm size and cash have an inverse relation, because from economies of scale firm can earn more profit (Mulligan, 1997), chances of more diversification, the greater constant cash flow, lower the possibility of financial distress (Titman & Wessels, 1998) while it also result in getting easy accessibility to capital markets (Ferrerria & Vilela, 2004).

Investment in tangible and intangible assets both have positive and significant and insignificant effect on cash holding for Pakistani non-financial firms which suggest that investment made in such fixed and non-fixed assets would result a greater increase in cash flow, such as equipped more planet and machinery, or make larger payment in company fixed assets which is used for operation. The above result is consistent with the previous findings of Sandra et al. (2016).

Net working capital has positive and insignificant effect on corporate cash holdings, the above results is consistent with the result of Ghulam Ayesha and Ajjid ur Rehman (2018), who concluded that positive coefficient indicate that there is excess of current liability incurred by firms to finance their obligation as their cash conversion cycle is longer.

Private credit to GDP has positive and insignificant effect on cash holding, the result of positive coefficient is consistent with findings of Sandra et al. (2016) who concluded that for private firms it is expensive to sum up cash in countries where private credit availability is scare, limited and consequently the cost of debt is high.

Proxy of stock market development as MCAP-GDP have positive but insignificant effect on cash holding, which is further motivated by the literature which emphasize precautionary benefits for holding cash and the previous linkage of managerial agency problem and cash holdings, such result is consistent with the findings of Gao et al. (2013) who concluded that manager who are self-interested may hold more cash rather than to paying it to the shareholders because such payment reduce cash and increase managerial dissertation. Such firms with high degree of agency problem and managerial conflicts have smaller cash reserve because it quickly dissipates the cash (Dittmar & Mahrt-Smith, 2007; Hartford, Mansi & Maxwell, 2008).

For comparison dummy variables were created, which shows that there exist significant differences between financial and non-financial firms for cash holding level, which suggest that on average both sectors hold different level of cash.

## **CONCLUSION**

The purpose of this study is to investigate factors effecting cash holdings for

financial and non-financial firms listed on PSX as KSE-100 index for the period of 2013-2019, with objective to investigate the cash level for such firms and with adding control variables like Private Credit to GDP, Market capitalization to GDP, total turnover made to GDP by taking secondary data from annual reports of such companies and data from World Bank, PSX, SBP as financial statement analysis, FRED, macro trend. This study has main objective to get new insight by adding macro level variables as control and by adding dummy variable in the model to determine the cash level for both firms in emerging market like Pakistan. Based from the above discussion results of this study is similar and consistent with previous researchers. Based on the concluding remarks this study has support both dynamics of trade-off and pecking order theory which plays significant role in explaining the determinants of corporate cash holding, the results are mostly and nearly similar with developed and developing countries as it is investigated by previous researchers, such results are consistent with previous findings, cash flow have positive and significant effect on cash holding, firm size have negative and significant effect on corporate cash holding, this study concluded that high cash is directly related with lower cash ratio, while higher debt ratio results in less cash and cash equivalent for non-financial firms, this study has recommended that company manager must concentrate on the optimum level of capital structure, make a tradeoff between company cash inflow and reserve more and more cash in order to curtail the chances of bankruptcy and financial distress.

This study has only investigated financial and non-financial firms listed on Pakistan stock exchange as KSE 100-index, this study has only taken the data from 2013-2019, while further research can also be done by employing and taken larger data set, such study can also be done to incorporate the effect of financial crisis, managerial dissertation, investor protection, creditor protection rights and such other factor which is highlighted by previous researcher, while the comparative study can also be done between the sectors.

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# IMPACT OF FOREIGN DIRECT INVESTMENT ON EXPORT OF PRIMARY SECTOR: EVIDENCE FROM PAKISTAN

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## ABSTRACT

*The paper aims to determine the impact of foreign direct investment (FDI) on exports of the primary sector of Pakistan. Time series annual data sets from 1980-2015 are taken from the World Bank (WDI) and Economic Survey of Pakistan. Stationarity of series has been tested through Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests. ARDL model has been applied to determine the long-run association among the variables. The study concludes that foreign direct investment significantly determines the export of primary commodities. It is suggested that policies could be made to attract FDI in the primary sector.*

**Keywords:** ARDL, FDI, Exports, Real exchange rate, GDP

## INTRODUCTION

The importance of foreign direct investment (FDI) in less developed economies have extensively been debated in international literature. Foreign direct investment (FDI) promotes growth through advancing in technologies, create employment opportunities and integrate the host country with the global economy. On the other hand, it creates a balance of payments problems in the host country. Foreign direct investment affects exports from the country of origin in two different ways. First, the possibility of substitution if FDI enters the market of a country of origin where the national investor produces those goods, exports can be alternatives and FDI is defined as horizontal. However, if the FDI arrives in a host country to obtain a large

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part of the local market and sell the product locally instead of exporting the goods in other foreign markets (Haddad, 1993; Ruggiero, 1996; Sun, 2001; Yilmaz, 2008). Such FDI depresses domestic investors. So, domestic firms exporting activities get negatively affected by foreign firms export activities, further, it becomes an obstacle for non-exporter local firms in becoming exporters (Mondal & Pant, 2020). Although the contribution of exports to the world market has increased due to FDI, so it is defined as a complementary factor for exports. Such FDI's are known as vertical investments that's why it has a direct and positive impact on exports. Investors bring their investments to the host country to reduce production costs and take advantage of the scarce resources of the host country where it has a comparative advantage. These FDIs contribute to promoting exports from recipient countries. The exporting capability, new job creation, better options of domestic investments (Kamal et al., 2019), getting familiar with new technology, converting this familiarity into economic growth of beneficiary country increases due to FDI (Hussain & Ansari, 2020). So, how the export will be impacted by the FDI depends on nature and the purpose with which the entry is being made. If the purpose is to just enter and become a part of the local market then the export might decrease but having a motive of getting the benefit of comparative advantage may lead towards an increase in exports (Musti, 2020)

In less developed economies, shifting to machinery from the existence of less-skilled workers does not seem to be an easy task. In such situations, attracting the FDI will decline the exports performance level of the beneficiary. It also damages the performance of domestic exporters. Devious efforts of the host country to channelize its comparative advantage will produce an opposite impact of FDI on the beneficiary country's exports (Zhang, 2009). Mundell (1957) and Svensson (1996) have shown that the exports are negatively impacted by FDI whereas (Helpman, 1984; Grossman, 1989; Lipsey, 1981) gave a positive conclusion on global trade. The difference in the opinion of economists in the developing world has created new and dynamic forms of research due to the mysterious and contradictory nature of the prevailing economic concepts and empirical evidence. So, it confuses the reader about the impact of direct foreign investment on exports, whether negative or positive.

Fig. 1: Foreign Direct Investments (FDI) and Exports of Pakistani primary goods (XP)

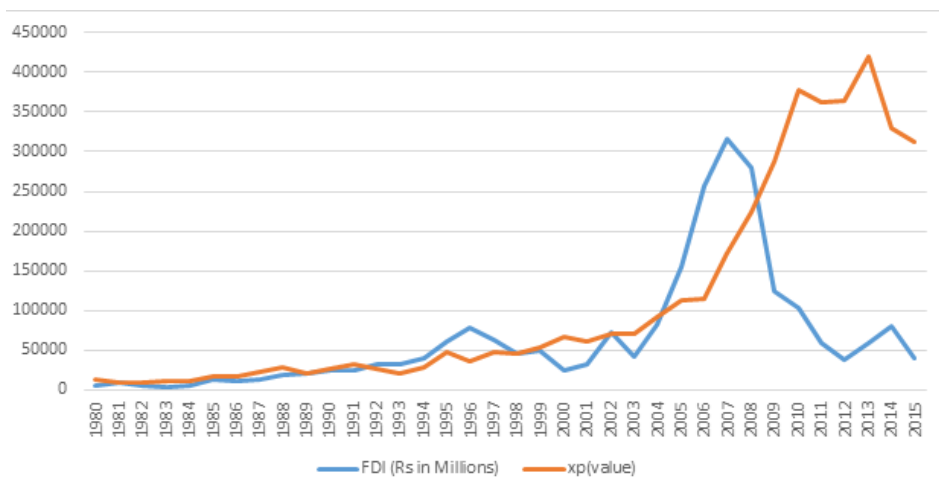


Fig. 1 shows that from 1980 till 1988 both FDI and exports are growing at different rates. In 1988-89, exports are falling while FDI is showing a regular upside movement. During 1993-1995, both FDI and exports are moving up. In 1996, exports show downward movement but gradually went up during 1997-2000, but FDI is showing a declining trend from 1996 to 2000. In 2003-2007, FDI goes up significantly but after 2007 till 2012 it comes down drastically. Exports increase regularly but during 2006-2013 it comes up considerably.

There has been an increasing debate among economists in developing countries about the impact of foreign direct investment on exports of recipient countries. One of the main concerns in this debate is whether FDI spurs export activity in countries that receive FDI. Countries that receive FDI have an advantage over their competitors in terms of low cost and high skill in the world market (Cabral, 1995; Leichenko, 1997; Zhang, 2009). On the contrary, FDI is discouraged when it replaces domestic investment. So, it needs to be deeper down examined that whether the FDI encourage or discourage the domestic investments in FDI receiving countries (Shah & Hasnat, 2020). The graph above does not exactly reveal a clear picture of the relationship between FDI and exports performance of Pakistani primary goods but provides a slight idea about the trends in the same direction which is a basic signal of long-run relationship. Further, less number of literature exists in the context of Pakistan which have covered especially the export performance of the primary sector so more investigations are needed to explore it. Therefore, this study tries to fill this gap by examining this relationship of foreign direct investment (FDI) and export performance in the primary commodities sector of Pakistan. Results of this research will help to formulate the policies that could be the core step towards attracting the FDI in the primary sector to achieve sustained economic growth.

In the next section, the study covers the literature of previous studies to provide theoretical and empirical support for this research. Further, the next parts are methodology, data analysis and conclusion, which will be discussed one by one.

## **Literature Review**

The theoretical underpinning for the study is centered on the Heckscher-Ohlin(H-O) Model, endogenous growth theories and new trade (Liu and Shu, 2003). H-O model claims that a nation will use the factors which the nation has abundant in supply to export the products. According to the new trade theory, the important factors to determine exports performance are the imperfect competition, economies of scale, product differentiation and trade cost (Krugman,1983). With the increased globalization, Markusen and Venables (1998) used FDI into their general equilibrium trade models. Endogenous growth theory emphasized that technology and innovation play an important role to determine exports performance.

Many studies are available that have evaluated the performance of the aggregate export impacted due to the change in foreign direct investment. Kojima (1985) analyzed four ASEAN countries (Thailand, Philippine, Malaysia and Indonesia) and four newly industrialized countries (Taiwan, Hong Kong, Korea and Singapore) to reveal an impact on FDI of Japan and USA. Japan was higher to have trade-related investment whereas the FDI of the USA was in opposite conditions. Chou (1988) reconsidered Kojima (1985) study on Taiwan economy and declared that Japan and USA's FDI to Taiwan remained significant and positive on the exports of Taiwan.

Leichenko (1997) inspected the association between FDI and export performance by examining twelve years of data (1980 to 1991) for different states of the USA. They inferred a positive relation of FDI with the industrial performance of exports. Hejazi (2011) studied association among FDI and international trade of the United States of America (USA) and 51 other countries. They used the gravity model, took the data span from 1982-1994. Results reported a significant but positive association of FDI with USA exports' performance. Liu (2002) concluded a bi-directional causal association among FDI and exports of China. They used the quarterly data of 17 years (1981-1997) of both FDI and exports for the analysis.

Sharma (2003) inspected to display the impact of FDI on Indian exports for the period of 1970-1988. Results confirmed that FDI does not have any significant influence on Indian export's performance which is opposite to the results of Prasanna (2010). On the other hands, O'Sullivan (1993) and Blake (1994) examined the Ireland and UK economies, respectively. Both studies have shown that the FDI and local exports of the country are complementary. Different cross-country studies have

mentioned that FDI impacts the domestic exports of a country, varied by both industry and region.

Pain (1988) has studied the ten OECD countries and examined whether the FDI effects on export performance, by using a panel data series, Denmark, Japan and Italy dropped their exports performance. Sun (2001) examined for a Chinese economy that by region how crucial is FDI's role in exports, for a period from 1984 to 1997. He showed a significant impact of FDI on the different coastal areas of China compared to the rest of China. Alici & Ucal (2003) evaluated the Turkish economy by taking trimestral data for 1987-2002 to show the causal relationship among inward FDI, GDP growth and their exports performance. The results remained insignificant causal relationship.

Ekanayake (2003) studied the USA, Brazil, Mexico, Chile and Canada economies to check the causality among FDI and exports on a data period from 1960 - 2001. The study confirms the existence of bidirectional causality for the USA and unidirectional causality between exports and FDI for Brazil and Mexico while rest remained insignificant. Metwally (2004) uncovered the association between FDI, exports and output growth on Oman, Egypt and Jordan economies on a data set for the period from 1981-2000. The conclusion was a significant impact of FDI on exports of goods and services for the above three economies. Pacheco-Lopez (2005) did the Granger causality test among FDI and export's performance. They concluded to have a bi-directional causal relationship among them.

Vuksic (2005) checked the same effect on the Republic of Croatia by taking a panel data of twenty-one industrial sectors from 1996-2000 indicated an affirmative and meaningful impact of FDI on the performance of exports by fixed-effect model. Yousuf (2008) evaluated the impact of FDI on international trade for Pakistan. He took annual data of 32 years (1973 to 2004). Johanson Johanson co-integration technique and ECM models have been used for econometric analysis. The results indicate a positive, significant and long-run relationship of FDI on exports whereas in the short-run increase in FDI has a decreasing effect on exports. According to Majeed(2007), FDI revealed a significantly positive impact on exports performance of a mix of forty-nine advanced and less developed countries. The data was used for 15 years and applied the fixed-effect model for 3-SLS method. They suggested for emerging economies to invite FDI by removing the barriers and relaxing the regulations on exports. Export performance is significantly and positively impacted by FDI in different countries (Blake, 1994; Colm, 1988; Davaco, 2014; Jiang, 2013; Ozawa, 1992; Pine, 1988; Shahbaz, 2012; Sun, 2001).

Nourzad (2008) evaluated the significance of FDI in determining the efficiency of the economy by taking annual data from 1981-2001. The findings show that the positive relationship of FDI with potential GDP in both advanced and emerging economies by applying the stochastic production frontier along with regression analysis. Hailu (2010) explored the linkage between FDI and international trade for 16 African countries with the help of twenty-seven years' yearly data from 1980-2007. Results indicated a positive but momentous effect of FDI on international trade. Further, it is recommended that FDI is an extremely helpful tool for expansion of exports in these countries. Kiran (2010) also examined the causality link of same for the Turkish economy by taking three-monthly data set from 1992-2008. The outcome confirms no causality exists among the two variables FDI and international trade.

Ahmadi & Ghanbarzadeh, (2011) and Attari, Kamal, & Attaria (2011) studied sixteen MENA and Pakistani economies, respectively. Both studies have established a conclusion that bi-directional causal relationship between FDI and exports. Chansomphou and Ichihashi (2011) reviewed the impact of FDI on Lao Peoples Democratic Republic's exports performance for a time from 1981 to 2008. The results summarized as the confirmation of strong long-run significant and positive association among the FDI and exports. As per Tabassum (2012) evaluation about the association among FDI and exports for Pakistan during 1973 to 2009 based on co-integration and error correction mechanism (ECM) technique, it is confirmed that there exists an insignificant association between FDI and export performance in both long-run and short-run. Jawaid et al (2016) checked the impact of FDI on Pakistani export performance. They used annual data of thirty-nine (39) years from 1974 to 2012 and performed the robust ARDL model to do the econometric analysis. The results revealed a useful long-run relationship between the variables. It confirms a significant long-run and short-run impact of FDI on exports. Granger causality test, Toda and Yamamoto Modified Wald causality, and Variance Decomposition test have been used to examine the causality among the variables. The results exactly confirmed the existence of a bi-directional causal association between FDI and export's performance.

Sanghita and Mondal (2020) tested the export spillover effect due to FDI on the manufacturing firms of India from 1994 to 2010. They concluded that the firm's export performance is significantly impacted by the insertion and usage of those information, knowledge and new technology which are brought by the multinational firms. Hussain, Ansari, and Khan (2020) concluded in their study that there exists a co-integration (significantly positive long run) among the variables GDP, FDI and exports of both goods and services of India which confirms a significantly positive relationship among these variables in the long-run. Musti (2020) evaluated the influence of FDI on Nigerian export's performance for the period of 1970 to 2018. They

concluded an insignificant direct impact of FDI on exports but in parallel, the economy is in its growing state. This might be due to the growth of the other factors are heading in the right direction and boosting the economy even the foreign investments are not triggering the exports.

According to Shah et al. (2020), the contribution of FDI to Pakistani exports declined but at the same time, this contribution to Pakistani imports has significantly moved up due to increase in terrorism in past years which is increasing country's trade deficit. Sohail (2020) inferred in their study that both FDI and exports are vital factors in the economic growth of Pakistan. Each one has a significantly increasing impact on the economy because FDI is one of the important features which triggers the exports as well, so at the end, it may lead towards the overall growth of the economy. Shah et al. (2020) studied the impact of sectoral FDI on domestic investments over the time frame of 1980-2012 by using the ARDL model. They concluded that FDI does impact the domestic investments but does not remain fixed across the sectors, it varies. They further inferred that FDI for manufacturing and services sectors have significant while FDI for the primary sector has no significant influence on the Pakistani domestic investment.

## RESEARCH METHODOLOGY

The study aims to determine the impact of foreign direct investment (FDI) on the export of primary sector of Pakistan. Annual time-series data have been collected from 1980 to 2015, from the reliable sources like World Development Indicator (WDI) and several reports of Economic Survey of Pakistan. The dependent variable is Export (XP) of the primary sector whereas real exchange rate (RER), foreign direct investment (FDI) and GDP are independent variables. The study uses the Autoregressive Distributed Lag (ARDL) technique for estimation. This technique has many advantages. Firstly, this procedure is useful irrespective of their series integration level (0) or I(1) partial integrated (Pesaran & Pesaran, 1997; Bahmani-Oskooee, 2002). Secondly, It takes adequate lags to capture the data generating process in a general to specific modelling framework (Laurenceson, 2003). Lastly, it helps to originate dynamic ECM through a linear transformation without dropping information about long-run elasticities (Banerjee et al., 1993).

The basic econometric model is

$$\text{LREXP}_{\text{ip}} = \alpha_0 + \alpha_1 \text{LRFDI}_t + \alpha_2 \text{RGDP}_{\text{t}} + \alpha_3 \text{RER}_t + e_t$$

$\text{LREXP}_{\text{ip}}$  = Log of Real Exports of the primary sector of Pakistan at time t.

$\text{LRFDI}_t$  = Log of Real Foreign direct investment of Pakistan at time t.

$RGDP_t$  = Real Gross domestic product of Pakistan at time t.

$RER_t$  = Real exchange rate of Pakistan at time t.

$e_t$  = Error term of the model at time t.

Table 1: Summary of Definitions and Sources of Variables

| Variable                              | Description  | Construction               | Citation                   | Data Source                 |
|---------------------------------------|--|----------------------------|----------------------------|-----------------------------|
| Export of Primary Sector (RXP)        | Inflation-adjusted export of goods of the primary sector. (in millions of Rs.)   | $LRXP = \text{Log}(RXP)$   | (Yasir Khan, 2019)         | Economic Survey of Pakistan |
| Real Foreign Direct Investment (RFDI) | “A category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy”. (in millions of USD) | $LRFDI = \text{Log}(RFDI)$ | (Khalid Zaman, 2012)       | WDI                         |
| Gross Domestic Product (RGDP)         | “Inflation-adjusted value of all goods and services produced by an economy in a year”. (in millions of Rs., Base year = 2010)  | $LRGDP = \text{Log}(RGDP)$ | (Simplice A. Asongu, 2020) | WDI                         |
| Real Exchange Rate (RER)              | Inflation-adjusted exchange rate. (in PKR/USD, Base year = 2010)   | RER                        | (SAMI ULLAH, 2012)         | SBP                         |

## EMPIRICAL RESULTS

In the current study, we are using time series analysis. The fundamental principle in time series analysis is that all variable should be stationary. For checking stationarity of variables, we use Augmented Dickey-Fuller (ADF) and Phillip-Perron (PP) tests (Phillips & Perron, 1988). ADF has the null hypothesis that the series has unit root (non-stationary) while the alternative hypothesis is the series does not have unit root (stationary). RER is stationary at  $I(0)$  (means at level) while GDP, FDI and Ex-

ports are stationary at I(1) (means at first difference) in both ADF and Phillip-Perron tests.

Table 2: Stationarity Testing Result Summary

|       | ADF          |                       | PP          |                       |
|-------|--------------|-----------------------|-------------|-----------------------|
|       | Level        | 1 <sup>st</sup> Diff. | Level       | 1 <sup>st</sup> Diff. |
| LRXP  |              | -7.415482*            |             | -7.451154*            |
| LRFDI |              | -4.917096*            |             | -4.948426*            |
| LRGDP |              | -6.145682*            |             | -6.141880*            |
| RER   | -2.0006206** |                       | 1.824201*** |                       |

\* Significant at 1%, \*\* Significant at 5%, \*\*\* Significant at 10%.

### Cointegration Results

Table 3: ARDL Bounds Test(LRXP)

| F-Statistics | 99% LB <sup>a</sup> | 99% UB <sup>b</sup> | 95% LB | 95% UB | 90% LB | 90% UB |
|--------------|---------------------|---------------------|--------|--------|--------|--------|
| 8.110666     | 4.29                | 5.61                | 3.23   | 4.35   | 2.72   | 3.77   |

a: LB stands for Lower Bound, b: UB stands for Upper Bound.

After getting confirmed about the rejection of the existence of unit roots means variables are stationary, we move towards checking of the long-run relationship among the variables. To achieve the objective, the ARDL model has been applied as the order of integration is different for all the variables. The ARDL Bound test result is displayed in Table 3. To decide the presence of a long-run relationship among the variables, F-statistic value is compared with the 95%UB value at the set significance level of 5%. According to a rule of thumb if the F-statistic value is higher than the UB value then there exists a long-run relationship among the defined variables. In the current scenario, the F-statistic value (8.79) is more than the 95% UB value (even at 1% and 10% significance level too) so it confirms the existence of a long-run cointegration between the variables.

Table 4: ECM (Error Correction Mechanism)

**Dep. Var.: LRXP**



**Model Confirmed: ARDL(3, 3,  
4, 0)**

| <b>Variables</b> | <b>Coeff.</b> | <b>t-statistics</b> | <b>Probability</b> |
|------------------|---------------|---------------------|--------------------|
| LRXP(-1)         | -0.220276     | -1.075588           | 0.2963             |
| LRXP(-2)         | -0.399159     | -2.532047           | 0.0209             |
| LRFDI            | 0.133165      | 1.742178            | 0.0985             |
| LRFDI(-1)        | -0.061453     | -0.569218           | 0.5762             |
| LRFDI(-2)        | -0.194103     | -2.472050           | 0.0236             |
| RER              | -0.008050     | -1.177150           | 0.2545             |
| RER(-1)          | -0.010246     | -1.119515           | 0.2776             |
| RER(-2)          | 0.001132      | 0.144903            | 0.8864             |
| RER(-3)          | -0.009343     | -2.096823           | 0.0504             |
| RGDP             | 0.000000      | 2.485030            | 0.0230             |
| ECM(-1)          | -0.795653     | -3.832814           | 0.0012             |

Table 5: Diagnostics Tests

|                                  |   |               |
|----------------------------------|---|---------------|
| R <sup>2</sup> 0.924449          | Serial correlation LM test F value 0.092793 | prob [0.7644] |
| Adjusted R <sup>2</sup> 0.869885 | Heteroscedasticity F value 1.674170         | prob [0.1536] |
|                                  | Normality test J.B Value                    | 0377998       |
|                                  | prob[.827787]                               |               |
| DW 2.086451                      | Ramsey reset Test F Value                   | 0.001210      |
|                                  | prob[0.9727]                                |               |

As the error correction term (ECT) has a negative sign which confirms the long-run relationship among variables. The significance of error correction term coefficient inferring that short-run equilibrium is converging to a steady long-run equilibrium. ECM value systematically indicates the adjustment speed that how quickly the short-run disequilibrium directs towards the long-run equilibrium. The ECM coefficient value is 0.795653 which defines that 79 percent changes in short-run equilibrium are adjusted in the current year. Diagnostics tests are also performed. Autocorrelation has

been tested by Breusch-Godfrey (BG) Serial Correlation Lagrangian Multiplier (LM) Test ( $p$ -value  $> 0.05$ ) assures that the Autocorrelation does not exist, the decision about the negation of heteroscedasticity has been finalized by Breusch-Pagan-Godfrey (BPG) test ( $p$ -value  $> 0.05$ ) whereas the normality of data has been checked and confirmed by Jarque-Bera (JB) test ( $p$ -value  $> 0.05$ ).

Table 6: Analysis of Exports of Primary Goods in Long Run

| <b>Variables</b> | <b>Coefficients</b> | <b>T-Statistics</b> | <b>Probability</b> |
|------------------|---------------------|---------------------|--------------------|
| LRFDI            | 0.446202            | 3.142588            | 0.0056             |
| RER              | .008636             | 2.815537            | 0.0114             |
| LRGDP            | 0.000000            | 0.000000            | 0.0003             |
| C                | -0.727550           | -0.194277           | 0.8481             |

Dependent: LRXP

The outcomes long-run coefficient of cointegration show that the effect of FDI and real exchange rates have positive and significantly determine the export performance of the primary sector. As the elasticity is being indicated by the long-run coefficient of FDI showing that upside movement in FDI by 1% will move the exports of primary goods up by 0.446%.

## CONCLUSION

This study examines co-integration among foreign direct investment (FDI) and the performance of exports of primary goods. The results indicate that the FDI effects significantly and positively on the performance of exports of primary commodities. As the error correction term's (ECT) sign is negative, which signals a long-run but stable association among the variables used in the model. The coefficient value of ECT is significantly indicating a healthy convergence of short-term equilibrium towards a long-term equilibrium but a stable one.

As the current study is showing that positive sign of FDI in Pakistan contributes to enhance exports performance in the primary sector and contribute to increasing economic growth that helps to improve employment generation and raising the standard of living. FDI is also helpful to access the world market and transfer of technology. Therefore, it is recommended for the policymakers that policies could be made to attract FDI in primary to stimulate economic growth. If Pakistan wants to attract the FDI, they need to maintain good governance, keeping the macroeconomic factors

steady and developing a politically stable environment. Besides these improvements, infrastructure and spending in human capital will also help to attract FDI in Pakistan. For the future researchers, the current study could be extended in terms of time, by capturing more specific impact of primary subsectors like the GDP contribution of agriculture and mining sectors on export. Further, it can be tested for different regions like SAARC and European regions.

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# TRANSFORMATIONAL LEADERSHIP AND SUBORDINATE ORGANIZATIONAL COMMITMENT IN PAKISTAN: THE COMPLEMENTARY ROLE OF STATUS INCONGRUENCE AND SUPERVISOR GENDER

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## ABSTRACT

*Based on the theory of role congruity, the study analyzes in what way status disparity (when the dependent and junior, has better experience of work, more education, and tenure of an organization as compared to the manager) in the dyads of junior-supervisor influence capability of a transformational leader to encourage efficient commitment towards an organization between their juniors. The study analyses in what way male and female transformative leader could inculcate commitment towards an organization in their followers according to their gender. Therefore, we implemented structure of Triana et. al. (2017) on the organizations of Pakistan. For research study 364 responses were collected using the survey method and five-point self-administrated questionnaire from the manufacturing firms of Karachi, Pakistan using a purposive sampling technique. PLS-SEM by utilizing SmartPLS (software) version 3.2.8 being utilized for the examination of data gathered. Present research concludes*

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*Transformational Leadership and Subordinate Organizational Commitment in Pakistan that transformative management possesses significantly decisive effect on the commitment towards an organization. However, the moderating influence of gender was not found statistically significant among transformative management and commitment towards an organization; whereas a moderating impact of status, incongruence was found statistically significant and negative towards the linkage among transformative management and commitment towards an organization. If the organization promotes a team-building culture, it will motivate employees in working collaboratively and accomplishing further than before. Such implication assists to increase their level regarding obligation as well as develop an accord of long-standing work culture.*

**Keywords:** Transformational Leadership, Organizational Commitment, Status Incongruence, Gender, PLS-SEM.

## INTRODUCTION

### Background of the Research

This transformational leadership brings inspiration to the organizational subordinates that do working for the organization by bringing motivation to them by the help of the strategic vision of leaders, by communicating this vision and developing the commitment with the proposed vision (Andersén & Andersén, 2019). According to the researchers, there has been a decisive effect on transformative management on obligation and commitment from an organization (Moses, Admiraal, & Berry, 2016). These researchers have investigated this relationship in different cultural and organizational settings (Brenner et al., 2018; Sloan, 2017).

The status incongruence being familiar as the condition where the traditional features related to the subordinates and their leaders' roles are fixed. For example, the conditions where the supervisor has hired that turnout to be younger than their subordinates having lesser education than their subordinates and have lesser experience than their subordinates (Yang, Wu, & Jing, 2017). The past studies on this status incongruence have revealed that the older workers of organizations do not have as many expectations from their younger supervisors as they have with their younger

## **Problem Statement**

Though the researchers have focused on the linkage among the transformative management and the commitment towards an organization in the different administrative and cultural environment (Bono & Judge, 2003), still there is very limited research on why and how such transformative management style is associated along with the effective promptness with the organization (Triana, Richard, & Yücel, 2017). Further, the past studies have not given a clear understanding of the transformational leadership effects on the status incongruence between the subordinates and their supervisors and also on the gender of the supervisors that predicts the affective commitment of the subordinates in organizations (Castilla, 2012). The research studies, conducted on these transformational leadership topics do not give use clear understanding related to how the women and men have a leading position in the situations of incongruence, such as the supervisors are younger than the subordinates and they do not have much experience and education too as compared to the subordinates(-Dasgupta & Asgari, 2004). Thus it is crucial to understand that how transformative management of male as well as a female can encourage the factor of commitment towards an organization among their descendants and also according to these leaders' gender differences while, if these leaders are in the conditions of status incongruence with the organizational followers or not (Eagly & Johannesen-Schmidt, 2001).

The study of status incongruence is very important to be conducted since these days it is becoming very common for the more experienced and old age workers in an organization to have reported to the younger supervisors. Further, there are varying workplace demographics related to age. The working hours of employees have increased and they are retiring late as they have higher longevity and increased financial needs, this shows that there is increased differences in age between the workers. Thus this study helps us to understand more regarding the differences and the effects of styles of leadership when there are status incongruence's in a demographically divided setting. The present specific subject is significant because even though this getting more frequent for senior employees to inform junior managers, the research of position incongruence demonstrates such senior employees anticipates not much from junior supervisors than junior employees do (Collins, Hair, & Rocco, 2009). Moreover, populations of the place of employment are varying observing age. Workers are employing for a long period of time and not retiring in very short-term because of enhanced financial requirement and durability, which defines that, a changing in the context of age enhanced manpower and effectiveness (Kunze, Boehm, & Bruch, 2011).

Furthermore, the outcomes of the study are unclear and uncertain observing in which way women and men direct within incongruent conditions, meaning, for instance, they're junior and not many experienced managers with senior better and more capable, subordinates, either they have a low level of education or tenure of an organization as compare to their juniors.

## **Gap Analysis**

Though the researchers have focused on the linkage among the transformative management as well as commitment towards an organization in the different administratively and cultural environment and surroundings (van Gils, Van Quaquebeke, Borkowski, & van Knippenberg, 2018), still there is very limited research on why and how such transformative management style is associated with the effective promptness with the organization (Triana et al., 2017). Further, the past studies have not given a clear understanding of the transformational leadership effects on the disparity of the standard and status among the manager and their sub-ordinates and also on the gender of the supervisors that predicts the affective commitment of the subordinates in organizations (Schultz, 2019). The research studies, conducted on these transformational leadership topics do not give use clear understanding related to how the women and men have a leading position in the situations of incongruence, such as the supervisors are younger than the subordinates and they do not have much experience and education too as compared to the subordinates (Nyberg, Johansson, Westerlund, Rostila, & Toivanen, 2019).

In this regard, Triana et al. (2017) examined the moderating job of status incongruence and supervisors' gender towards the linkage between transformative management and commitment towards an organization. They conducted a comparative study on 'pink-collar workers' in turkey and the US. The found low-standard disparity reinforced and enhanced the decisive linkage among transformative management and junior employees' effective commitment towards an organization for both genders' supervisors and managers.

We applied Triana et al. (2017) framework, on Pakistani firms, no such research was carried out in regions more dominated with collectivist culture. Several studies on transformative management, their predecessors, and commitment towards an organization being carried out in modern traditions, which are generally distinguished like being individual and having low insecurity uncertainty and lower the distance of strength and power (Hofstede, Hofstede, & Minkov., 2010). Even though, the enhancing amounts of researches on the commitment to the commitment towards an organization are being carried out in the occidental traditions, several types of research are required in the contexts of occidental culture. Within the context of culture

like Pakistan, society respects managers who possess a firm bearing in the team. The manager is awaited and hoped in a vital part in dividing the imagination as well as the values of a firm and in encouraging promptness towards the goals of the team. Consequently, this is a fresh attempt to carry out this type of study on the establishing state of Pakistan.

## **Research Questions**

The questions of the present research are defined below

Q1. What's the effect of transformational leadership towards organizational commitment?

Q2. Does gender and incongruence of status moderate the linkage between transformative management and commitment towards an organization?

## **Literature Review**

### ***Transformation leadership and organizational commitment***

Almutairi (2016) concluded that transformative management was decisively associated towards job performance as well as effective organizational commitment. Moreover, the study also found that the commitment towards an organization was significantly mediating an association between job performance and the transformational leadership style while Malik, Javed, and Hassan (2017) discovered that transformative leadership components significantly effected in context to job satisfaction with the employee's organizational commitment as well as Iqbal, Fatima, and Naveed (2020) found that when employees perceived the leader as transformational, the psychological empowerment increases along with enhanced well-being that also increased the commitment while Y.-F. Yang (2016) demonstrated that leadership was significant as well as that the trust (role of leadership identification) and commitment (job team coherence) developed an enjoined consequential association with each other.

Ribeiro, Yücel, and Gomes (2018) found that the affective commitment was significantly mediating the association among the transformative management and the performance of an individual of the employees meaning that the transformational leaders enhance the employees' affective commitment which, as a result, was significantly enhancing the individual performance of the employees, also, Rittschof and Fortunato (2016) showed that transformative management was discovered to be majorly inter-related along with the job burnout as well as with the attitude of the job as it was proposed, and job burnout was partially mediating the association among the transformational leadership and the factors of criterion while Farahnak, Ehrhart, Torres, and Aarons (2019) discovered that there was a decisive connection among transformative

management and behavior of employees on the evidence-based activity, and of the attitude of workers on the evidence-based practice and the success of an adoption. Moreover, the researchers found that there was an indirect relation between transformational leadership and the success of adoption with the help of the attitude of workers on evidence-based practice. The findings also suggested that the behavior of the leader was found to be significantly important to the adoption of innovation compared to the attitude of the leader.

### ***Gender and organizational commitment***

Andersén and Andersén (2019) concluded that female workers and managers showed enhanced affective commitment in firms that used the High-Performance Work System (HPWS) but the study also found that the males that did not have managerial designations showed a reciprocal association meaning that for the male workers, the high-performance work system was decreasing the affective commitment while Moses et al. (2016) found that the role of gender was positively associated with teaching commitment and to intend to start teaching. Also, Sloan (2017) found that the perceived emotional support between employees in a workplace was decisively associated to effective promptness to the employment of the state.

However, Brenner et al. (2018) found that the attitude of help-seeking to be adversely associated towards self-stigma of help-questing and decisively associated to religious commitment while self-stigma was not related to religious commitment. Men showed higher negative attitudes compared to women. It was also found that the three-way engagement like the association among gender and help-seeking attitudes had a moderating impact of both religious commitment and self-stigma. However, S. Yang et al. (2017) found that females employed under female leaders had the lowest level of organizational commitment, however, the variation among the organizational commitment and employment under male leaders to statistically significant.

Even though a meta-evaluation of understanding and gender of manager productivity demonstrates that women and men managers don't vary in discerned effectiveness of manager Paustian-Underdahl, Walker, and Woehr (2014), a various meta-evaluation showed that the model of "think manager think male" endure (Koenig, Eagly, Mitchell, & Ristikari, 2011). The public even inclines to relationship management with the gender of male and manly features(Koenig et al., 2011).

### **Status incongruence and organizational commitment**

The study explains the incongruence of status as a condition where features of tradition linked along the manager and junior acts are adverse. For example, conditions where the manager is younger in age than the employee who is subordinate, have low educated than the junior in status, has lesser experience of work, or has less

tenure of an organization than the junior entire represent facets of the incongruence of statuses. Without the incongruence of status, there will be the status congruence following the rules of tradition.

Dwertmann and Boehm (2016) concluded that the incongruence was associated with lower performance as well as lower leader-member exchange quality. The results also revealed that the impact of disability incongruence including the standard of manager-employee interchange was impoverished and weak where the leader was disabled compared to a situation where the employee was a disabled while, W. Li et al. (2017) found that status incongruence was present in higher-ups when social status was inconsistent and also found that while national power distance reduces the chances of CEO being dismissed, status incongruence was significantly impacting the CEO dismissal. Also, van Gils et al. (2018) found that respectful leaders were commonly impactful for female managers irrespective of the following gender but Nyberg et al. (2019) found that the negative status incongruence among the educational achievement and social status subjectively were partially predicting the marginal risk of ill mental health as well as sickness turnover between workers in services of human occupation.

### ***Congruity of Leader Roles and Gender Roles***

Efforts and attempts of the managers which are female to adapt their attitude to the periodically disputing demands of the role of the women and their management role could encourage styles of management that varies from those of men. Roles of gender thus have various implications for the attitude of the leaders of both genders, not merely because the male and female acts have various substances, but as well as there is merely incongruity among the dominant combinative features that observers relate with female and the dominantly unique characteristics which, they think are needed to make it as a manager. Public thus lean to have same faith regarding managers and male but different philosophy regarding managers and female.

As Eagly and Karau (2002) claimed, the discerned disparity among the role of female gender and roles of typical managers incline to make bias toward women managers and capable managers that required two kinds: (1) low positive measurement of women's potential than potential of men for management because ability of management is more hackneyed of male than female and (2) low positive measurement of the real behavior of management of female than male because unique attitude is discerned as less suitable in female than male. The first kind of bias stems from the vivid standards of the roles of gender, that is, the enabling of vivid philosophy regarding the characteristics of female and the subsequent attribution to them of women hackneyed characteristics, which are dissimilar the characteristics anticipated and coveted in managers.

The second kind of bias stems from the prohibitory (or descriptive) standards of

roles of the gender, that is, the enabling of philosophy regarding how female need to conduct. If women managers breach this descriptive philosophy by satisfying the unique styles of management needs of the roles of management and failed to show the common, assistive attitudes that are chosen in female, they could be adversely measured for these breaches, even as they could merely gain several decisive measurements for their satisfaction of the role of manager. The role conformity examines thus proposes that choices of women manager are restricted by menaces from two dimensions: validating to their role of gender could make a failure to meet the needs of their role of management, and validating to their role of management could make a failure to meet the needs of their role of gender. Specifically, significant for style of management would be the second kind of bias, that is, the adverse response that female could encounter when they conduct in an unique style, specifically, if that style involves practicing dominance and control over different people. In summary, the social role argument that roles of management restrict attitude so that sex variances are least among residents of the similar role of management must be hardened by different more difficult observations. Not only may roles of gender she over to settings of an organization, but identities of managers' gender could also restrict their attitudes in a guidance persistent with their roles of gender. Also, the role of women gender is further probably to be disparity with roles of manager than the role of male gender is, creating a greater potential for bias against the managers which are women. Such bias could outcome in adverse assents that influence the behavior of the leaders.

Subsequently, the role congruity theory address that leaders which are female are only evaluated as lower advantageous than leaders which are male. Female leaders face issues because they sometimes face disputing requirements among the female gender advantageous (predominantly collaborative features) and the oriented role (predominantly argentic attributes). Thus, the act of gender had different effects for leaders of men and women considering the way people expect them to behave and how they can create it as a leader (Eagly & Johannesen-Schmidt, 2001).

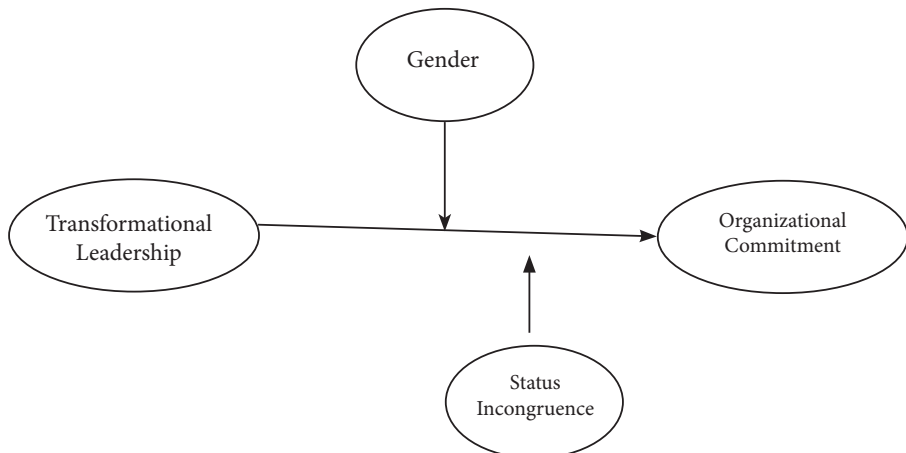
### ***The Moderating Effect of Supervisor Gender***

We acknowledged that having uncertain vigorous credentials assists women to prevent them from being besmirched to some extent. Thus, when there is exist lower position disparity among a female manager and their junior employees, the credentials of managers are uncertain, and we will expect this to assist that transformative management slightly in attaining junior employees' affective commitment towards an organization. But higher position incongruence looks to hinder positive visions regarding the credentials of women. If there exists an issue of the incongruence of position among female managers and their employees, being a transformative manager could assist them to build for that and develop commitment between adherents. Nevertheless, for

the reason women are anticipated to be more friendly and linkage oriented, that cover with the features of transformative management, these behaviors of management may be less effective on rest when executed from the female manager (on the contrast to a male manager) in the status of higher position incongruence. If the behavior of transformative management is persistent along with stereotyped behavior of female than entire those attitudes need to prominent. This could define why women gain lower appreciation than men for executing behavior of organizational citizenship that is persistent along stereotyped regarding women being caring for instance, (Allen & Rush, 2001).

### ***The Moderating Effect of Status Incongruence***

Theory of role congruity forecasts that the high-level position manager (which is the one having a lot of experience, tenure of an organization, age, education) required to be the manager. This specific philosophy is persistent along with the standards of typical age in the firms (Dannefer, 2003; Lawrence, 1996). When junior employees are in a higher-position incongruence condition, they sense like something is lacking and could become disgruntled and showed low effective promptness (Allen & Meyer, 1990, 1996; Herrbach, 2006). These sense of lacking are far fewer probably to happen when there is lower-position incongruence among the subordinates and managers for the reason of their features of status. When there exists a lower position incongruence among the supervisor and junior employees, the parties engaged are concordant along with traditional stereotypes status in society and thus the theory of role congruity (Eagly & Johannesen-Schmidt, 2001; Eagly & Karau, 2002; Eagly et al., 1992) will forecast no mitigation in the transformative management to junior employees effective commitment relation to an organization. But, when there exists higher position incongruence, the theory of role congruity would forecast lower recognition among the supervisor and subordinate. In these cases, the decisive transformative management influences on junior employees' commitment towards a firm required to be feeble by the incongruence of position and status.





## RESEARCH METHODOLOGY

### Sampling

With the help of the N10 formula (Hair, Ringle, & Sarstedt, 2011), the study has anticipated a minimum of 40 responses from the target population as there are four variables, meaning that  $4(10) = 40$  responses needed. Therefore, the researcher collected a total of 364 responses to conduct the statistical analysis for the study. The study also used the non-probability purposive sampling technique as the sampling technique of the study. The non-probability purposive sampling technique is a sampling technique where the researcher collects the data from people that can provide data that is rich in information because they are the experienced people in the topic of the study (Daniels, Glover, & Mellor, 2014). The study adopted the non-probability purposive sampling because this research requires that the data should be collected from the relevant and specific people for rich information from the sources. The data was collected using the survey questionnaire method. Five-point Likert scale questionnaires were adopted. The survey method is where the data is collected using face to face personal technique and asked questions using the questionnaire. The self-administered questionnaires were distributed to the manufacturing firms of Karachi, Pakistan for the data collection.

### Instrument

Transformational Leadership has 3 Items Adopted From (B. M. Bass & Avolio, 1996). The Five-Point Likert Scale Was Used For Transformational Leadership. Organizational Commitment Has 4 Items Adopted From (Meyer & Allen, 1991).

#### Demographic Profile of the Respondents

Following table 1 provides a demographic profile of a total of 364 respondents.

Table 1: Demographic Profile of the Respondents (n = 364)

| Employee Demographics |          | Frequency | Percent |
|-----------------------|----------|-----------|---------|
| Your gender           | Male     | 210       | 57.7    |
|                       | Female   | 154       | 42.3    |
| Your Age              | 18-24    | 105       | 28.8    |
|                       | 25-34    | 84        | 23.1    |
|                       | 35-44    | 70        | 19.2    |
|                       | 45 Above | 105       | 28.8    |

|                                 |                   |                  |                |
|---------------------------------|-------------------|------------------|----------------|
|                                 | Undergraduate     | 14               | 3.8            |
| Your Academic Qualification     | Graduate          | 210              | 57.7           |
|                                 | Post-graduate     | 133              | 36.5           |
|                                 | Others            | 7                | 1.9            |
|                                 | Less than 1 year  | 217              | 59.6           |
| Your Experience in Current Firm | 1-3 years         | 105              | 28.8           |
|                                 | 3-5 years         | 21               | 5.8            |
|                                 | More than 5 years | 21               | 5.8            |
|                                 | Single            | 56               | 15.4           |
| Your Marital Status             | Married           | 308              | 84.6           |
|                                 | <hr/>             |                  |                |
| <b>Supervisor Demographics</b>  |                   | <b>Frequency</b> | <b>Percent</b> |
| Your supervisor gender          | Male              | 282              | 77.5           |
|                                 | Female            | 82               | 22.5           |
| Your Supervisor Age (Years)     | 18-24             | 87               | 23.9           |
|                                 | 25-34             | 84               | 23.1           |
|                                 | 35-44             | 159              | 43.7           |
|                                 | 45 Above          | 34               | 9.3            |
|                                 | Undergraduate     | 61               | 16.8           |
| Your Supervisor Qualification   | Graduate          | 31               | 8.5            |
|                                 | Post-graduate     | 272              | 74.7           |
|                                 | Less than 1 year  | 28               | 7.7            |
| Your Supervisor Experience      | 1-3 years         | 198              | 54.4           |
|                                 | 3-5 years         | 138              | 37.9           |

|                                |         |     |      |
|--------------------------------|---------|-----|------|
|                                | Single  | 192 | 52.7 |
| Your Supervisor Marital Status | Married | 172 | 47.3 |

### Descriptive Statistic

| Variables and Factors       | Questions<br>Mean  | Descriptive Stats  |               | Confirmatory Factor Analysis |          |              |
|-----------------------------|--|--------------------|---------------|------------------------------|----------|--------------|
|                             |  | Standard deviation | Outer Loading | T Stats                      | P Values |              |
| Transformational Leadership | I think that the company manager has carefully thought about the problem and overcome it with action | 3.88               | .777          | 0.842                        | 39.876   | <b>0.000</b> |
|                             | The behavior of managers could be identified by employees  | 4.02               | .721          | 0.840                        | 44.248   | <b>0.000</b> |
|                             | Company managers always encourage employees to improve proficiency                                   | 3.65               | .939          | 0.746                        | 20.414   | <b>0.000</b> |

|                           |   |      |      |       |        |              |
|---------------------------|---|------|------|-------|--------|--------------|
| Organizational Commitment | I enjoy discussing my organization with people outside it                                 | 3.90 | .767 | 0.706 | 21.324 | <b>0.000</b> |
|                           | I really feel as if this organization's problems are my own                               | 4.12 | .801 | 0.723 | 24.040 | <b>0.000</b> |
|                           | I do not feel 'emotionally attached' to this organization                                 | 3.46 | .821 | 0.714 | 17.819 | 0.000        |
|                           | I am not afraid of what might happen if I quit my job without having another one lined up | 3.90 | .767 | 0.714 | 15.046 | <b>0.000</b> |

### **Statistical analysis**

PLS-SEM is more commonly used for significantly small samples. PLS-SEM can be significantly relevant for studies associated with marketing, strategic marketing, and consumer studies to evaluate the latent variables as well as correlation and cause-effect relationships (Ringle, Sarstedt, & Straub, 2012). PLS-SEM can also indicate enhanced methodologies for discriminant validity that includes the HTMT ratio as well as cross-loadings. Hence, the research adopted the PLS-SEM for data analysis of the research model using SmartPLS version 3.2.8.

### **Measurement model**

Following table 2 provides a result of the measurement model comprising estimates of the factor loadings and its statistical significance, Cronbach's alpha, composite reliability (CR), and average variance extracted (AVE).

Table 2: Measurement Model

**Estimate      Prob.      Alpha      CR      AVE**

|                                    |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|
| OC2 <- Organizational Commitment   | 0.706 | 0.000 |       |       |       |
| OC3 <- Organizational Commitment   | 0.723 | 0.000 |       |       |       |
| OC6 <- Organizational Commitment   | 0.714 | 0.000 | 0.681 | 0.806 | 0.510 |
| OC9 <- Organizational Commitment   | 0.714 | 0.000 |       |       |       |
| TL3 <- Transformational Leadership | 0.842 | 0.000 |       |       |       |
| TL5 <- Transformational Leadership | 0.840 | 0.000 | 0.737 | 0.851 | 0.657 |
| TL6 <- Transformational Leadership | 0.746 | 0.000 |       |       |       |

The above table showed that all the latent constructs have factor loadings higher than 0.70 and found statistically significant at a 95 percent confidence interval (Hair et al., 2011). Moreover, Cronbach’s alpha was found higher than 0.60, composite reliability was found higher than 0.80, and AVE was found higher than 0.50 (Hair, Hult, Ringle, & Sarstedt, 2016). Henceforth, the measurement model provided that all the constructs have been developed adequately in the analysis.

Table 3 provides the result of discriminant validity using the Fornell and Larcker (1981) criterion.

Table 3: Discriminant validity using Fornell and Larcker (1981)

|                             | Organizational Commitment | Transformational Leadership |
|-----------------------------|---------------------------|-----------------------------|
| Organizational Commitment   | 0.714                     |                             |
| Transformational Leadership | 0.566                     | <b>0.811</b>                |

The above table showed that all latent constructs namely organizational commitment and transformational leadership have considerable discrimination between them. The bold values in the above table were the square-root of their respective AVE and were found highest in their horizontal and vertical

settings. Therefore, discriminant validity using Fornell and Larcker (1981) criterion has been achieved.

Following table 4 provides the result of discriminant validity using the Heterotrait-Monotrait (HTMT) ratio using PLS-SEM.

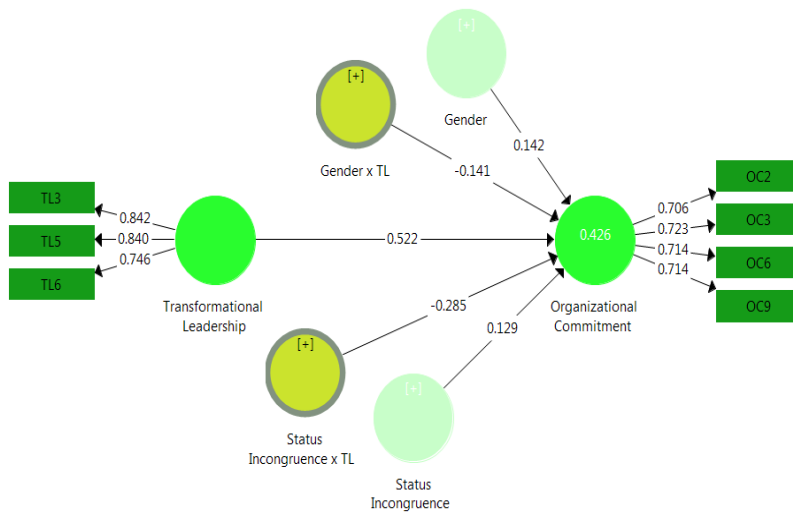
Table 4: Discriminant validity using HTML Ratio

|                             | Organizational Commitment | Transformational Leadership |
|-----------------------------|---------------------------|-----------------------------|
| Organizational Commitment   |                           |                             |
| Transformational Leadership | 0.787                     |                             |

According to Henseler, Hubona, and Ray (2016); Henseler, Ringle, and Sarstedt (2015), the HTMT ratio should be less than 0.85 for considerable discriminant validity. Therein, the above table showed that the HTMT ratio between organizational commitment and transformational leadership was found as 0.787 and hence, discriminant validity using the HTMT ratio has been achieved.

Figure 1: PLS Algorithm using SmartPLS version 3.2.8

Structural model



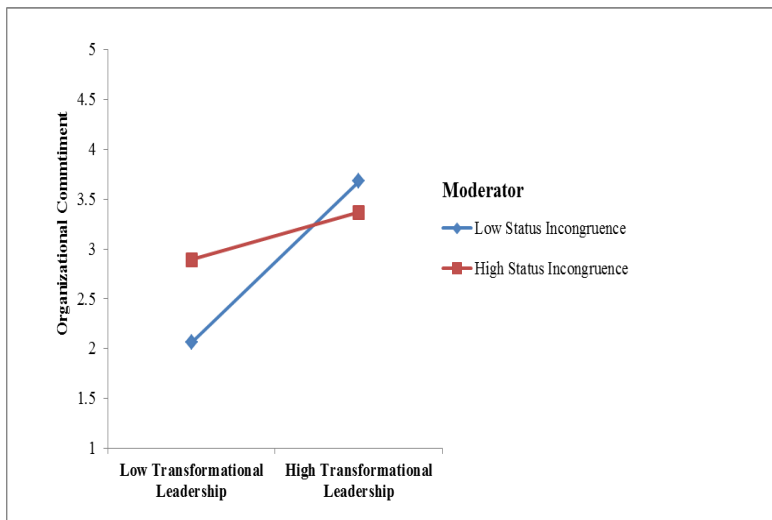
Following table 5 provides the result of path analysis for hypothesis-testing using PLS-SEM.

Table 5: Hypothesis-testing using path analysis

|  | Estimate | Prob. | Decision |
|--|----------|-------|----------|
| Transformational Leadership (TL) -><br>Organizational Commitment | 0.522    | 0.000 | Accepted |
| Gender x TL -> Organizational Commitment                         | -0.141   | 0.125 | Rejected |
| Status Incongruence x TL -> Organizational<br>Commitment         | -0.285   | 0.012 | Accepted |

The above table showed that transformational leadership (0.522,  $p < 0.05$ ) has a significantly positive effect on organizational commitment. However, the moderating effect of gender ( $-0.141$ ,  $p > 0.05$ ) was not found statistically significant between transformational leadership and organizational commitment; whereas the moderating effect of status incongruence ( $-0.285$ ,  $p < 0.05$ ) was found statistically significant and negative on the relationship between transformational leadership and organizational commitment.

Figure 2: Line diagram for the moderating effect of status incongruence



It has been shown that in the case of high-status incongruence, the organizational commitment will slightly increase from low transformational leadership to high transformational leadership. However, in the case of low-status incongruence, the organizational commitment will greatly increase from low transformational leadership to high transformational leadership.

## DISCUSSION

The finding of our study shows that there is a significant positive relationship between transformational leadership and organizational commitment which is also supported by (Bass & Avolio, 1995; Joo, Yoon, & Jeung, 2012; Kim, 2014). By encouraging them, fostering and endorsing creativity, giving individual attention, and demonstrating desirable habits, transformational leaders will inspire engagement in their followers. (Boamah, Laschinger, Wong, & Clarke, 2018). According to the COR view, leaders provide followers with tools needed to engage in successful organizational results (Hobfoll, Halbesleben, Neveu, & Westman, 2018). In this sense, transformative leadership contributes to a higher level of intrinsic value that followers instead put on target accomplishment, which in effect fosters a greater dedication to fulfilling commonly held corporate visions (Keskes, Sallan, Simo, & Fernandez, 2018). Leadership is considered an antecedent of organizational engagement. In particular, transformational leadership in broad organizational and cultural settings is found to be a precursor of organizational commitment (Avolio & Bass, 1995). Evidence from Han, Seo, Yoon, & Yoon (2016a) indicates that dynamic leaders inspire their members to become more engaged in their work (through social empowerment), dedicated to their organization, and engage in voluntary activities on behalf of the organization.

However, the moderating effect of status incongruence is found statistically significant and negative between transformational leadership and organizational commitment which is also supported by Nyberg et al. (2019) and van Gils et al. (2018). According to Schultz (2019) One dilemma that may arise is that younger employees may become dissatisfied if older employees stay in their supervisory positions and do not make room for leadership opportunities for younger and middle-aged employees. Li et al. (2017) suggests that handling older workers can be a problem as younger employees have an opportunity to try leadership if the rank incongruity between them reduces subordinate effective contribution to the company. Older employees naturally had more time to accumulate work experience, longevity, and qualifications than younger employees. If this is combined with older employees with low expectations of their younger supervisors, as stated by Collins et al. (2009) younger supervisors may face a difficult time.

Another finding of our study shows the moderating effect of gender is not found statistically significant between transformational leadership and organizational commitment which is also supported by Jain & Duggal (2018) and Sloan (2017). According to Farahnak et al. (2019) some men don't like the dominancy of women. They just don't like the fact that they have to follow the orders given by the women



thus it highly affects their commitment towards the organization. Moses et al. (2016) stated that sometimes it becomes difficult for the male supervisor to handle its female workers because of their differences. Aydin, Sarier, and Uysal (2011) stated that men supervisors are generally become lenient towards their female staff as compared to its male staff which eventually decreases the commitment of their male staffs as they found this act unfavorable and unjustifiable.

## CONCLUSION

The current study has established that there is an insignificant negative relationship between gender and organizational commitment; whereas, status incongruence has a significant negative relationship with organizational commitment with the moderating effect of transformational leadership. Also, transformational leadership has a significant positive relationship with organizational commitment. So, the current study concludes that when there is status incongruence i.e. difference between education background, socioeconomic level, etc. between the leader and the subordinates that it will highly impact the organizational commitment of subordinates. So the present study indicates that status difference negatively impacts the subordinate's commitment towards the organization. Workers which are younger could become disappointed if senior workers remain in their roles of supervisory and don't create room for youth and mature worker to have an opportunity at management. Our research proposes that when employees which are younger have a chance to try management, conducting elderly employees could be a dispute if the position disparity among them shows junior employees effective promptness to a firm. Elder workers have necessarily had more time to adopt work encounter, environment, and education contrasted to younger workers. If this is linked with senior workers having low anticipation of their younger manager, as Collins et al. (2009) reported, younger managers could have a tough period of time.

Furthermore, it also concludes that gender also plays an important role in building the organizational commitment of subordinates. Because some employees don't want women dominancy and others don't like man dominancy therefore both the gender has some negative impact on organizational commitment. Role congruity theory predicts that "to the extent that leadership roles are less masculine, they would be more congruent with the female gender role, and therefore the tendency to view women as less qualified than men should weaken or even disappear" (Eagly & Karau, 2002).

Lastly, the research also concludes that when Leaders promote, empower and enable staff to develop and bring about change then that will help them grow and form the company's future performance and also increase the subordinates' commitment

towards the organization.

## **Policy Implications**

Findings from this study show that transformational leadership can be used as an important development method for organizational leadership to deliver meaningful results. Also, the study results will help practitioners recognize that the success of employees is not only affected and improved by a style of transformational leadership but can also be strengthened by employees' strong organizational engagement. The research provides detail by identifying processes by which transformational leaders facilitate the exchange of expertise by creating personal confidence, organizational engagement, and OCB for employees. The results of this study would help practitioners to increase the retention of workers and create a sense of loyalty among them that will not only minimize their attrition expectation but also strengthen their dedication too and participation in their practice and organization. The result of this research provides substantial practical implications to leaders and organizations on how to build an environment of gratitude, engagement, appreciation, interest, and involvement for workers, which in turn will help to increase their dedication and efficiency.

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# REAL INTEREST RATE PARITY IN PAKISTAN: A COMPARATIVE STUDY

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## ABSTRACT

*The empirical existence of Real Interest Rate Parity between Pakistan and its trading and financial allies is scrutinized in this research paper. It hypothesizes that real interest rates are equal between these economies. The equality of Real interest rate is analysed among Canada, China, France, Germany, Hong Kong, Japan, Korea, Kuwait, Malaysia, Saudi Arabia, United Arab Emirates, UK, USA and Pakistan during the time period of 1972 Q1 to 2012 Q3. After the deregulation and international integration in the real and financial markets the interaction of major economic variables have become increasingly important. Real interest rate differential model is applied for the determination of exchange rate, which is based on real interest rate parity (RIP) theory, a combination of inflationary expectation of flexible-price model and sticky-price model. Panel cointegration and Panel-VAR techniques are used. Results of the techniques are supported the existence of Real Interest Rate Parity. These results are consistent with the earlier studies that tested real interest parity and nominal exchange rate move simultaneously. This study concludes that for achieving a significant role in the international transactions, it is imperative to improve the working of the domestic markets and then move towards the international markets. This research paper also suggests that without the coordination*

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*among all policies (monetary, fiscal, trade and exchange rate) consistency among macroeconomics targets is not possible. Paper's result strongly supported the existence of RIP for the whole sample period.*

**Key Words:** *real interest parity; inflationary expectation; panel-cointegration*

## INTRODUCTION

According to real interest rate parity hypothesis, real interest rates become equal between countries when inflation forecasts according to rational expectations and there are free movements of interest and goods arbitrage. In a globalised world, real interest rate parity indicates that either financial and goods markets of different countries are integrated or not. Mishkin (1984) initially tested this hypothesis later several studies have done for the same. Baxter (1994) empirically evaluated the relationship between real exchange rates and real interest differentials during the period of free floating between USA and five other countries: UK, Switzerland, Japan, Germany and France, and between France and Germany, during the time span 1973 Q1 to 1991 Q2. The study found strong correlation between real exchange rates and real interest differentials using band-spectral methods with trends and business cycles frequencies. Findings of the study also explained that earlier studies could not find this link as they employed first-difference filter. Ferreira and Leon-Ledesma (2007) results supported the evidence of RIP for developed countries with the emerging markets, where risk premia are large as compared to developed countries. Dreger (2008) investigated the impact of real interest parity on nominal exchange rate, covering more than 100 years' time span 1870-2006, and 15 countries out of which 13 are European countries including UK and rest are USA and Japan. The study concluded that deviation from real interest parity is main cause of lack of financial and real markets integration among the sample countries. Chang and others (2012) found robust empirical evidence supporting the validity of RIP in long run while testing this parity between China and ten other Asian countries. These East Asian countries are highly influenced by the Chinese economy's movements. Shi and others (2012) employed real interest rate differential to examine the existence of interest rate parity in Canada, France, Japan, Singapore and UK as compared to USA. Their result supported the existence of the parity as real interest rates are mean reverting and real interest parity differential occurred in most of the sample countries.

The real interest rate differential model is the combination of inflationary expectation of flexible-price model and sticky-price model. Frankel (1979) combined these models and developed a general monetary exchange rate model. According to

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this model there are rapid adjustments across the world's goods, financial and foreign exchange markets and maintaining neutrality of monetary policy. An inflationary expectation leads to rise in interest rate. The nominal interest rate and nominal exchange rate are proportionately related to inflation rate expectation keeping real interest rate at constant level.

Expected inflation rate in goods market is related to the return in capital market through the Fisher Effect equation

$$n_{d,t} = r_{d,t+1}^e + \Delta\pi_{d,t+1}^e \quad (1)$$

$$n_{f,t} = r_{f,t+1}^e + \Delta\pi_{f,t+1}^e \quad (2)$$

Where  $n_d$  and  $n_f$  are expected real interest rates for domestic and foreign countries, respectively. If Purchasing Power Parity (PPP) and Uncovered Interest Parity (UIP) hold simultaneously, there must be an existence of Real Interest Parity (RIP). That is,

$$r_{d,t+1}^e = r_{f,t+1}^e$$

The Real Interest-Rate Parity indicates that the real return on capital must be equal across countries. So, this parity condition holds independently of any exchange rate, and reveals that the nominal interest rate differential reflects the expected inflation differential (Fama, 1975).

$$\pi_{d,t+1}^e - \pi_{f,t+1}^e = n_{d,t} - n_{f,t} \quad (4)$$

According to this model, equilibrium exchange rate are determined by the interest rate differentials between domestic and foreign countries.

$$\Delta E = n_d - n_f \quad (5)$$

This interest rate differential depends on the inflation differential between these countries.

$$n_f = \pi_d - \pi_f \quad (6)$$

## RESEARCH METHODOLOGY

For investigating the presence of real interest rate parity among fourteen countries this study applied; Panel unit root, for checking stationarity of the data series, panel cointegration, for finding out long run relationship among the variables and finally the panel VAR. These methodologies are based on theoretical foundation of exchange rate determination models. The sample countries are Pakistan, North American countries; Canada, UK, USA, European Countries; Germany, France, Asian countries;

Japan, Peoples Republic of China, Japan, Korea, Kuwait, Malaysia, Saudi Arabia, United Arab Emirates. All these countries are major partners of Pakistan in trade and finance. For finding out the existence of Real Interest Rate Parity model; exchange rates, inflation rates, and interest rates of each country are used as variables.

Consumer price indices are used as inflation, which are suitable to analyze the behavior of consumers and savers of any economy, Mishkin (1984). Treasury bill rates are used as nominal interest rate data, which are assumed less risky and perfect substitutes among each other. Real interest rates are obtained by getting the difference between nominal interest rate and expected inflation rate of each country. Nominal exchange rates are used as exchange rates data of each country, where value of dollar in term of each currency (£/\$). After that all nominal exchange rates are converted in terms that each currency in term of Pakistani Rupee, as used by Kemal and Haider (2005).

### **Panel Data Tests**

Utilization of Panel data philosophy gave precision of relapse. Rehashed perceptions on people permit probability of segregating impacts of imperceptibly contrasts between people. It is useful for dynamic investigations and to make causal surmising by upgrading the transient requesting and afterward impact control for factors that shift over the long haul.

In any case, there are additionally a few cut-off points to the advantages of Panel data: Variety after some time may not exist for some significant factors or might be expanded by estimation mistake. Panel data forces a fixed planning structure; ceaseless time endurance investigation might be more useful. A Panel with waves doesn't give time the data of a cross-section. However, there is exceptionally solid proposal to draw clear derivations from Panels.

Numerous new writings propose that Panel unit root tests are more remarkable than unit root trial of individual time arrangement. This examination likewise applied this test, which processes one of the accompanying five sort's tests: Levin, Lin and Chu (LLC) (2002); Breitung (2000); Im, Pesaran and Shin (2003) (IPS), Fisher-type tests using ADF and PP tests, and Hadri (1999). These tests are simply multiple-series unit root tests and applied to panel data structures. Panel and individual unit root tests have similarity, but they are not alike.

The examinations are computed under two assumptions; First, when tests are assuming a common autoregressive structure for all series, as "Common root" and second, when tests assume different autoregressive coefficients in each series, as "Individual root".

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The following is AR (1) process for panel data:

$$y_{it} = \varphi_i y_{it-1} + X_{it} \vartheta_i + \varepsilon_{it} \quad (7)$$

where  $i = 1, 2, 3, 4, \dots, N$  cross-sections, over the time periods  $t = 1, 2, 3, 4, \dots, T$ .

The  $X_{it}$  is the exogenous factors with any fixed impacts or individual patterns,  $\varphi_i$  are the autoregressive coefficients, and the mistakes  $\varepsilon_{it}$  are autonomous eccentric aggravation. On the off chance that,  $\varphi_i < 1$  is supposed to be feebly (pattern) fixed and on the off chance that  $\varphi_i = 1$ , at that point  $Y_t$  contains a unit root.

Panel co-integration tests permit leading a few tests to register the panel co-integration. The Pedroni test is accessible for bunches containing seven or lesser arrangement. The Deterministic trend detail indicates the exogenous regressors to be remembered for the second-stage regression. Singular intercept is chosen if individual fixed impacts are incorporated. The Kao test just takes into consideration Singular capture. Automatic selection decides the optimum lag by utilizing Akaike, Schwarz, Hannan-Quinn, information criteria. What's more most optimum lag is to be utilized in programmed choice for each cross-section dependent on the quantity of perceptions.

This paper additionally sets up the co-integration property in more exact terms. This is accomplished by applying Paderoni (1999) panel cointegration procedures. The since quite a while ago run harmony between swapping currency scale change, inflation differentials and loan cost differentials may happen because of the presence of outside or inward patterns. To investigate these issues, every factor is isolated into normal and individual constituents. Co-integration between the basic segments alludes strength of outside patterns in this balance. On the off chance that co-integration existed between singular parts, it uncovers that inner patterns are predominant here. This characteristic is valuable for strategy producers and strategy suggestion. On the off chance that the regular parts co-coordinate, worldwide exchange and account are required to hugely affect the cycle of improvement of a public economy. Indeed, this examination uncovers that swapping currency scale change, inflation rate differentials and loan cost differentials (interest rate) are cointegrated in their basic segments just as individual segments.

This paper applied Pedroni technique to construct the tests for the null of no co-integration in panel. For this compute the regression residuals as of hypothesized co-integrating regression. In equation form

$$y_{it} = \alpha_i + \delta_i t + \beta_{1i} x_{1it} + \beta_{2i} x_{2it} + \dots + \beta_{Mi} x_{Mit} + \varepsilon_{it} \quad (8)$$

$t = 1, 2, \dots, T$ ; refers to number of observations,

$i=1,2,\dots,N$ ; refers to cross sections (countries)

$m=1,2,\dots,M$ ; refers to number of variables (three )

Vector auto-regression model is used when multiple time series are interrelated and progress through each other.

**Panel Unit Root Test**

For time arrangement examinations unit root test is a benchmark methodology. As indicated by Engle and Granger, (1987) direct use of OLS or GLS to a non-fixed information gave misleading outcomes. Then again, singular unit root test is less ground-breaking when contrasted with panel unit root test. Hadri (1999), Breitung (2000), Levin, Lin, and Chu (2002), and Im, Pesaran and Shin (2003) presented panel-based unit root tests.

This part applies panel unit root trial of genuine interest differential. Table 1 shows the consequences of panel unit root test with every one of the six techniques for assessment. Levin, Lin and Chu (LLC), Breitung, Im, Pesaran and Shin (IPS), ADF – Fisher, PP - Fisher and Hadri are assessed first with consistent at level, besides with both steady and pattern at level, lastly with consistent from the outset distinction.

Table 1: Panel Unit Root Tests: Individual Effects Estimation

|                                 | <b>Method</b> |          |         |        |        |       |
|---------------------------------|---------------|----------|---------|--------|--------|-------|
| Real interest rate differential | LLC           | Breitung | IPS     | ADF    | PP     | Hadri |
| First Difference (C)            | -10.1*        | -16.7*   | -27.32* | 607.2* | 973.2* | 2.22  |

Note:- All data set are assessed at constant. The null hypotheses of the existence of unit root are rejected at 95 % of statistical significant level and denoted with\*.

Panel unit root test results for the real interest rate differential are presented in table 1. According to the result, all tests reject the unit root null for real interest rate differentials at first difference with constant at 5% level of significance and accept the alternative except Hadri. Tests results with an asterisk support that the series of real interest rate differential become stationary at first difference I(1).

**Panel-cointegration Tests Results**

After panel unit root test this part is identified with panel co-incorporation test

proposed by Pedroni (1999). Pedroni proposed seven parametric and non-parametric insights to test the invalid theory of no co-cointegration against the elective speculation of co-integration. Out of these seven measurements Pedroni utilizes four panel insights and three gathering panel insights. In panel measurements, the auto-regressive term should be the equivalent across all the cross segments. In gathering panel measurements, the parameter (auto-regressive term) is permitted to shift over the cross sections. If the null hypothesis is dismissed in the panel case, at that point the two factors of the panel are co-integrated. Then again, if the null hypothesis is dismissed in the gathering panel case, at that point co-integration among the two factors existed in any event one sets of nation.

Table 2 presents the panel and group statistics; these are the test consequences of panel cointegration between loan fee differentials and inflation rate differential. These test statistics uncover an assurance about the presence of cointegration in the panel. Six out of the seven insights propose cointegration over the panel overall at the 5 percent significant level or better. Be that as it may, variance-ratio statistics recommend no cointegration in panel.

The hypothesis that there is no co-integration between change in loan fees differentials and expected inflation rate differential in every nation’s pair in the panel, is firmly dismissed by the statistics. Nonetheless, the alternative hypothesis suggests that there is co-integration in each nation pair is unequivocally maintained by the statistics.

Table 2: Panel Cointegration Test

$H_0$ : No cointegration

|                | Panel Statistics     | Group Statistics  |
|----------------|----------------------|-------------------|
| Variance-Ratio | 1.834064<br>(0.0333) |                   |
| Rho-Statistic  | -72.91*<br>(0.00)    | -62.42*<br>(0.00) |
| PP-Statistic   | -29.58*<br>(0.00)    | -33.51*<br>(0.00) |
| ADF-Statistic  | -23.01*<br>(0.00)    | -25.61*<br>(0.00) |

N=13, T=2119

This empirical investigation of the Real Interest Rate Parity by using joint mod-



elling approach of UIP-PPP strongly provides the proof of the presence of RIP in the long run, where changes in interest rate differential and expected inflation rate differential have strong long-run relationship.

For further authenticity of the existence of Real Interest Parity, panel co-integration test is employed for realizing the long term association between changes in exchange rate and real interest differential (RID). Table 3 represents the Pedroni panel co-integration results along with the panel and group statistics. These test results also provide the strong provision of co-integration in the panel. Six tests statistics among seven suggested 5 per cent significance level or better cointegration over the panel as a whole. However, variance-ratio statistics proposed no co-integration in panel.

The hypothesis that there is no co-integrating relationship between changes in exchange rate and real interest rate differential in each country pair in the panel is rejected by the statistics. However, the alternative hypothesis implying that there is co-integration in each country-pair is strongly accepted by the statistics.

**Panel Cointegration Test**

Table 3: Exchange Rate Change, Real Interest Rate Differential

H<sub>0</sub>: No co-integration

|                | Panel Statistics  | Group Statistics  |
|----------------|-------------------|-------------------|
| Variance-Ratio | 36.03*<br>(0.00)  |                   |
| Rho-Statistic  | -31.28*<br>(0.00) | -29.03*<br>(0.00) |
| PP-Statistic   | -16.14*<br>(0.00) | -19.10*<br>(0.00) |
| ADF-Statistic  | -16.10*<br>(0.00) | -16.84*<br>(0.00) |

N=13, T=2119

**Panel VAR Model**

The Panel Vector Autoregression (VAR) methodology is also used in the real interest rate differential model; all variables are treated as endogenous variables and allowed for unobserved individual heterogeneity. In other words, growth in interest rates differentials influenced by expected inflation rates differentials and in exchange,

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expected inflation rates differentials has an impact on the growth in interest rates differentials. In other test, changes in exchange rates influenced by real interest rate differential and in exchange, real interest rate differential depends on change in exchange rate.

## **Impulse Response Function**

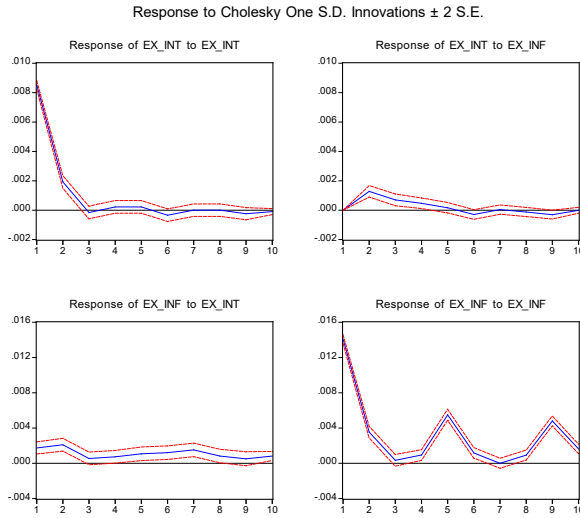
Impulse response function clarifies the impact of one variable because of abrupt changes in other variable in the framework, keeping different stuns at zero. To detach stuns of the VAR errors it is important to deteriorate the residuals such that they become symmetrical. To improve connection between the variables of a framework, impulse response function is utilized to explore the connection between two variables. There is a response of one variable to an impulse in another variable the last call causal for the previous.

Figure 1 uncovers the consequence of Impulse Response Function, from left to right of first column left hand figure communicates the response of progress in financing cost differential to change in loan fee differential; right hand side figure signifies the response of progress in financing cost differential to expected inflation rates differentials. Second column figures from left to right speak to the response of expected inflation rates differentials to change in loan fee differentials, and response of expected inflation rates differentials to change in expected inflation rates differentials repectively.

At the point when the impulse is changed in loan cost differential, the each response of its own is positive however strongly decay till third quarter, and afterward it gets zero and varies around the zero line. The responses of expected inflation rate differential is positive and ascending till first quarter at that point begin to decay and get negative in 6th quarter, after that kept up with low vacillations around the zero line.

Figure 1: Impulse Response Function

$$\Delta(n_d - n_f) \text{ and } (\pi_d^e - \pi_f^e)$$



When impulse is changed in interest rate differential, every response of expected inflation rate is positive with slight fluctuations above the zero line. The response of expected inflation differential of its own is always positive with frequent fluctuations during the whole period.

Figure 2: Impulse Response Function

### $e$ and $(r_d - r_f)$

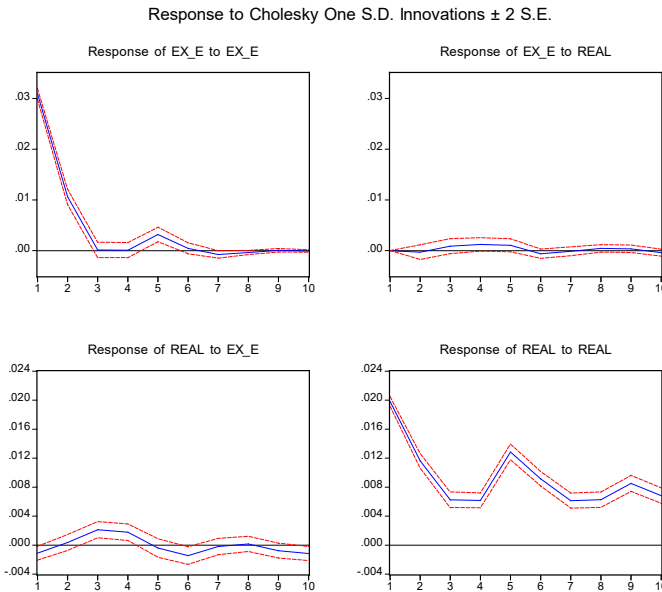


Figure 2 uncovers that the consequence of Impulse Response Function, from left to right of first row two figures express the response of progress in exchange rate to change in exchange rate and response of exchange rate change to genuine loan cost (interest rate) differential respectively. Second row figures from left to right speak to that the response of real interest differential to exchange rate change, and response of real financing cost differential to real interest rate (loan fees) differentials respectively.

At the point when the impulse in exchange rate change, at that point each response of its own is positive with diminishing rate till third quarter, in the wake of keeping up at zero line in final quarter it begins to rise, at that point decreases and gets negative in the seventh quarter lastly varies around the line zero. Each response of genuine loan cost differential is blended in with slight variances around the line zero and stayed steady on zero line in all quarters.

At the point when the impulse is real interest rate differential, each response of development in exchange rate is exceptionally unstable around the zero line. Response of real interest rate (genuine loan fees) differentials of its own impulse, is positive and declining strongly till second from last quarter and kept up till final quarter at that point begins to rise and decays, all vacillations in the response of real interest rate is extremely distant from the line zero.

## CONCLUSION

The real interest rate differential model-a blend of inflationary expectation of flexible price model and sticky price model created by Frankel (1979). As per this model there are quick changes across the world's products, foreign and financial markets and maintaining neutrality of monetary policy keeping closeness in the real interest rate across the economies. This paper dependent on "real interest rate differential", results gave the proof of Real Interest Rate Parity model. It hypothesizes that real interest rates are equivalent among Pakistan and its significant exchanging and monetary accomplices. The equality of real interest rate is dissected among Canada, China, France, Germany, Hong Kong, Japan, Korea, Kuwait, Malaysia, Saudi Arabia, UAE, UK, USA and Pakistan during the time span of 1972 Q1 to 2012 Q3. After the liberation and worldwide mix of both monetary and merchandise showcases the association of major financial variables have gotten progressively significant. Out of different models of exchange rate determination, real interest rate differential model is applied. Panel cointegration results firmly upheld the since quite a while ago run connection between real interest rate differential and exchange rate change, and then again since a long time ago run relationship additionally demonstrated between changes in interest rate differential and expected inflation rate differential. In aggregate, there is a presence of real interest parity (RIP) hypothesis over the long haul.

This likewise recommended that the strategy creators ought to keep up the new rules to fortify the connections among nominal interest rate, expected change in exchange rate and anticipated inflation that swelling should build the level of mix of merchandise and monetary business sectors of Pakistan with the remainder of the world business sectors particularly with significant exchanging accomplices. It would likewise give a structure to the approach producers that the consistency among macroeconomic targets is conceivable when there is coordination in the financial, monetary related and exchange rate policies. This study concludes that for achieving a significant role in the international transactions, it is imperative to improve the working of the domestic markets and then move towards the international markets.

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