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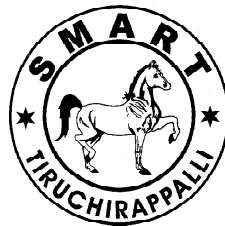
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EDITORIAL

Real Estate Investment Trust (REIT)

REITs or real estate investment trust can be described as a company that owns and operates real estates, to generate income. **Real Estate Investment Trust Companies** are corporations, that manage the portfolios of high value, real estate properties and mortgages. For instance, they lease properties and collect rent thereon. The rent thus collected is later distributed among shareholders as income and dividends.

Typically, REITs offer investors, an opportunity to possess high-priced real estate and enable them to earn dividend income, to boost their capital eventually. Thus investors can utilize the opportunity, to appreciate their capital and generate income, at the same time. Properties included in REITs comprise data centres, infrastructure, healthcare units, apartment complexes, etc. The different sources of funds, for REITs, include Equity, Mortgage, Hybrid, Private REITs, Publicly traded REITs and Public non-traded REITs. There are many advantages for the investors, who park their funds in a REIT.

- **Steady dividend income and capital appreciation: Investing in REITs is said to provide substantial dividend income and also allows steady capital appreciation over the long term.**
- **Option to diversify:** Since most REITs are traded frequently on the stock exchanges, it provides investors with an opportunity to diversify their real estate.
- **Transparency in dealing:** Being regulated by the SEBI, REITs are required to file financial reports, audited by professionals. It provides investors with an opportunity to avail information on aspects like taxation, ownership and zoning, thus making the entire process transparent.
- **Liquidity:** Majority of REITs trade on public stock exchanges and hence they are easy to buy and sell, which adds on to their liquidity aspect.

- **Accrues risk-adjusted returns:** Investing in REITs offers individuals risk-adjusted returns and helps generate steady cash flow. It enables them to have a steady source of income to rely on even when the rate of inflation is high.

REITs are likely to suffer with some limitations.

- **No tax-benefits**
- **Market-linked risks and Low growth prospect**

In India, the concept of Real Estate Investment Trust is relatively new and the first guidelines were introduced by SEBI (Securities Exchange Board of India) in 2007. The current SEBI guidelines, related to REITs in India, were approved in September 2014.

At present, REITs are heating up as a destination for investment, as evident from the fact that even during the pandemic-stricken year of 2020, the net absorption of real estate was quite high. There are also strong indicators that the net absorption in 2021 will be over 30 million square feet. This stems from India Inc's ongoing efforts towards self-reliance in line with the Government's Aatmanirbhar Bharat agenda. This will undoubtedly fuel the real estate sector, which will add to the international and domestic confidence in REITs.

Both big and small investors can park their funds, with caution, into this investment option and reap benefits accordingly.

The Thirty Fourth Issue (Vol.17, No.2) of the SMART Journal of Business Management Studies consists of ten articles, written by authors of repute, on different themes of contemporary relevance. I hope readers would find the Journal academically challenging and strategically stimulating.

Professor Murugesan Selvam

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&

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Date: **09.07.2021**

DRIVERS OF EMPLOYEE PRODUCTIVITY : A BANKING PERSPECTIVE

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Abstract

The foremost concern of business organizations is to sustain the employees' performance at the workplace, by implementing innovative strategies. The objective of this study was to analyze the mediating effect of employee creativity and wellbeing, in the relationship between Innovative Climate (IC) and Organizational Citizenship Behavior (OCB) in the banking sector of Vehari, Pakistan. Data were collected through structured questionnaires, from 232 bank executives. PLS-SEM was used, to test the accuracy and significance of the hypothesis. The results revealed that creativity and well-being did mediate in the relationship between IC and OCB. The research established that innovative climate enhanced the employee working behavior, through employee creativity and psychological wellbeing. More specifically, a friendly and innovative climate did have a positive effect on employee creativity, wellbeing and working behavior, which are essential for a productive workforce.

Keywords: Innovative Climate, Employee Creativity, Wellbeing, Organizational Citizenship Behavior

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1. Introduction

In response to rapid technological advancement, working climate of a firm becomes essential because its absence leads to a disrupting effect on the work-life of personnel resulting in low productivity. Hence employee creativity and wellbeing are the key factors of employee productivity, that could affect firm performance (FP). No wonder business firms are striving hard to ensure that their employees remain happy and motivated at work (McMurray et al., 2010; Schultz, et al., 2015; Waheed et al., 2019). A happy workforce is a productive workforce. This has kindled researchers' and marketing specialists' interest in this area of study. Human capital is considered a vital asset for an organization in today's dynamic market and FP is linked to the performance of its workers. Accordingly, worker collaboration with supervisors, helps to accomplish their organization goals. In other words, FP depends upon Organizational Citizenship Behavior-OCB (Sofiah et al., 2014). As a result, every organization mobilizes its personnel to undergo transformation and progress into the new condition (Hatjidis et al., 2019).

This continuously helps organizations to augment their core competency, with the help of human capital, which is strategically important in obtaining a competitive advantage (CA) over their rivals in the marketplace. The importance of OCB is getting widespread acceptance from organizations in different industries (Sofiah et al., 2014), especially, in banking, higher-education institutions, and information technology (Azeem and Akhtar, 2014). OCB is the distinct conduct of a worker (Organ, 1988), and it is conducive to the business organization in developing a competent and skilled workforce (Acaray and Akturan, 2015). Innovative friendly organizations adopt motivating strategies

like incentives, recognition, and promotions, to create a healthy working environment and utilize it as an effective tool, to foster employee wellbeing and productivity (Azeem et al., 2019). The "affective events theory" (AET) could also be used, as a tool for explaining the mediating effect of psychological wellbeing (Weiss and Cropanzano, 1996). According to AET, human emotions have numerous individual and employment-related consequences. Creativity and wellbeing positively influence employee positive behavior and organizational commitment, both of which are considered important features of the organization's progress (Obiora, 2015). This study analyzes the mediating role of creativity and employee wellbeing in the relationship between innovative climate and organizational citizenship behavior, in the banking sector of Vehari, Pakistan.

2. Review of Literature

Firm climate plays a vital role in providing harmony among personnel in the firm. Innovative Climate (IC) has significantly affected the employee working attitude and FP (Waheed et al., 2019). Guo (2011) defines an innovative climate as "an atmosphere within an organization, that fosters and propagates creative mechanisms, to achieve organizational outcomes and has in place various traits among organization members that are conducive to creative and innovative ideas". IC potentially reshaped employee's creativity, developed unique approaches and turned them into a positive attitude, that is conducive to accomplish organizational goal (Odesola, 2016). Ahmed et al., (2019) argue that organizational climate optimized the employee motivation and creativity, resulting in high-performance (Kremer et al., 2019). Creativity is defined as "The generation of ideas, that has to be organized and initiated by the senior management of an organization" (Wu et al., 2008). Employee creativity (EC)

improves with the help of colleagues' cooperation at work, open correspondence, and informative feedback (Zhou and George, 2001). Innovative firms have a better ability to respond to unpredictable challenges and threats (Reiter-Palmon and Illies, 2004). Employees' creativity, motivation, and capability collectively contribute to their performance (Iqbal et al., 2012). In other words, flexible work environment can encourage personnel to come up with new ideas, in a high-performance climate, which are essential for organizational survival.

Workplace wellbeing helps physical and mental state of personnel, to achieve organizational objectives. Tonkin et al., (2018) defines wellbeing as "a combination of feeling good and functioning well". Organizational climate helps workers' perception with respect to conditions, factors, and events in the firm. Psychological wellbeing is predominantly concerned with people's everyday worries, usually associated with work (Ryff and Keyes, 1995), as it integrates their "day-to-day feelings and evaluations of lives" (Gondlekar and Kamat, 2016). Wellbeing represents the workers' perceived psychological outlook towards life. Wright and Cropanzano (2004) affirmed that psychologically-well people are innovative and creative and they effectively employ modern practical techniques at work, which increases their productivity. OCB is manifested as the most important component for facilitating employees' productivity, which is linked with the working environment and organizational performance (Oplatka, 2009). OCB is defined as "individual behavior, that is discretionary, not directly or explicitly recognized by formal reward systems and that eventually promotes the effective functioning of the organization" (Organ, 1988). Innovative climate might persuade employees' OCB, that

would impact their performance (Shahin et al., 2014). This provides cooperation at workplace and helps understanding between personnel and employer, that is indispensable for organizational progress.

3. Statement of the Problem

Extensive change in the present business environment caused pressure on employee work performance and a disrupting effect on personnel work-life, which brings forth low-productivity and turnover intention. This becomes a leading challenge for private organizations in expanding and sustaining good organizational citizens, to help out in continued organizational progress. However, works on innovative climate in the context of banking sector in Pakistan, are scarce. Hence this study is uniquely the first attempt to explore the factors, that contribute to employee productivity and organizational development in a performance culture, by evaluating the role of innovative climate on employee creativity, wellbeing, and organizational citizenship behavior, in the banking sector of Pakistan.

4. Need of the Study

The necessity for this study was based on the requirement, to see how a productive workforce could be an imperative element in contributing to organizational performance. This study developed a unique framework, that would enable executives, business specialists, and researchers, to determine and comprehend about the drivers that boost employee productivity.

5. Objective of the Study

This research study examined the impact of innovative climate on creativity, wellbeing, and organizational citizenship behavior, in the banking sector of District of Vehari, Pakistan, by using the Partial Least Square.

6. Hypotheses of the Study

The hypotheses of the study were:

H1: Innovative climate is positively associated with organizational citizenship behavior.

H2: Innovative climate is positively associated with employee creativity and wellbeing.

H3: Employee creativity and wellbeing are positively associated with organizational citizenship behavior.

H4: Creativity and wellbeing have a mediating effect on innovative climate and organizational citizenship behavior.

7. Research Methodology

7.1 Sample Selection

The target population was bank executives i.e. (Branch Manager, Relationship Manager, and Marketing Manager, etc), working in different banks of the District of Vehari, Pakistan. In the District of Vehari, approximately 160 bank branches operate, such as private, local, and foreign banks. Almost seven bank officers are working in each branch and therefore, the total population, for the proposed study, was approximately 1120. As this was a behavioral study, the most commonly used method of selecting sample size, as suggested by **Krejcie and Morgan's (1970)**, was used. By using the Krejcie and Morgan's table, a sample size of 285 bank executives was considered for this study. To get a maximum response rate, all 285 questionnaires were distributed personally and out of which 232 error-free questionnaires were considered for the statistical analysis. The response rate was 81%.

7.2 Source of Data

A structured questionnaire was administered, to gather the primary data from bank executives, working in the District of Vehari, Pakistan. A simple random sampling

technique was used for this study. However, definitions, literature and references supporting this study, were based on secondary data, taken from previous studies.

7.3 Period of Study

All these activities were recorded throughout the period from January to March 2020.

7.4. Tools used for the Study

The study employed four variables. **Figure-1** presents the association between the variables employed in the study. The innovative climate was the independent variable and its 4 items were adopted from **Waheed et al., (2019)**. For mediating variable, that is, creativity, its 4 measurement items were adopted from **Zhang and Bartol, (2010)** and for wellbeing, its five measurement items were adopted from **Haider et al., (2018)**. OCB was the dependent variable and its four items were based on **Cardona et al., (2004)**. Responses were stated on a 5 point Likert scale, where 1 was for the "strongly disagree" and 5 for the "strongly agree". PLS-SEM was employed, to evaluate the measurement model and the structural model. For this purpose, SmartPLS 3.26 was used. In the measurement model, PLS-algorithm was used to examine internal consistency, scale reliability, convergent validity, and discriminant validity (**Hair et al., 2014**). The next step in the structural model was bootstrapping, to evaluate the relevancy and significance of hypothesized relationships.

8. Data Analysis

8.1 Measurement Model for Checking Reliability and Validity

Reliability and Validity are essential measurement instruments, to test the accuracy of the data (**Tavakol and Dennick, 2011**). Reliability was used to check internal consistency. The reliability of a test is associated

with its validity. A mechanism cannot be considered valid unless it is reliable. A commonly known criterion to test reliability quality is the Cronbach's alpha and composite reliability (CR), and the standard value of 0.70 up to 0.90, revealed higher internal-consistency reliability. In the second step, the convergent validity (CV) was checked. Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2016). The convergent validity is checked by the average variance extracted (AVE). Hair et al., (2014) stated that "AVE value of 0.50 or higher, indicates that on an average, the construct explains more than half of the variance of its indicators". Another step to estimate the CV is the factor loading of the items. If the threshold value for factor loading is 0.708 or higher, it shows that the indicator is reliable. Table-1 demonstrates the results of the factor loading, Cronbach's alpha, Composite reliability, and AVE. Thus reliability and validity were achieved.

8.1.1 Discriminant Validity of Fornell Larcker Criterion

For discriminant validity, the Fornell Larcker Criterion was employed. Fornell and Larcker (1981) stated that in the correlation matrix, the square root of every construct of AVE checks the comparability, through its bivariate correlations, with all divergent constructs (Grégoire and Fisher, 2006). Discriminant validity subsists when the square root of AVE for each element exceeds the values of its bivariate correlations. The results of the Fornell Larcker Criterion were satisfactory, as evident from Table-2.

8.2 Structural Model for Testing the Mediation Effect

Results of bootstrapping provide the significance of hypotheses and if the t-value of a variable is 1.96 or higher, it shows a positive and significant relationship. To test the mediation

effect, Baron and Kenny's (1986) approach was employed. In the first step, the effect of the independent variable (IV), on the dependent variable (DV), in the direct-model must be significant. At T-value being 10.875 and P-value being 0.000, the effect of IC on OCB was significant. Hence, H1 was accepted. Secondly, the effect of IV on mediators and effect of mediators on DV must be significant. The effect of IC on creativity (T-value= 10.743, P-value= 0.000) and IC on wellbeing (T-value= 10.622, P-value= 0.000) were significant. Hence H2 was accepted. The effect of creativity on OCB (T-value= 3.287, P-value= 0.001) and wellbeing effect on OCB (T-value= 6.605, P-value= 0.000) was also recorded significant. Hence H3 was accepted. Finally, in the indirect-model, effect of IV on DV, in the presence of mediating variable, must be significant. With T-value at 3.483 and P-value at 0.001, there was significant effect of IC and OCB, in the presence of creativity and wellbeing in the indirect model, Hypothesis 4 was accepted. Table-3 shows the results of the testing of hypotheses.

9. Findings of the Study

The findings of this study revealed that innovative climate, employee creativity, and wellbeing did influence the organizational citizenship behavior. This study found that all hypotheses were accepted. The organizational innovative climate had considerably influenced organizational citizenship behavior, due to its systematic setting in private organizations. In other words, a flexible climate is indispensable to align the personnel with organizational objectives and create optimistic organizational citizenship, that can drive continuous organizational progress in a dynamic marketplace. Finally, this research identified that innovative climate, employee creativity, and wellbeing are the key factors, that contribute to employee productivity, conducive enough to sustain good organizational citizens.

10. Suggestions

The outcome of this study would be beneficial to executives and workers because when administrators were aware of how organizational climate can influence employees to achieve the appropriate level of performance, they would be functional in an effective innovative climate. Hence managers are advised to promote OCB and encourage workers to acquire innovative capabilities, that can help them in performance improvement because this is an inseparable component of every business firm. Finally, it is suggested that the policymakers should set up a flexible and supportive working environment that can accelerate employees' working behavior and facilitate efficiency, resulting in better organizational performance.

11. Conclusion

The objective of this investigation was to analyze the mediation effect of employees' creativity and well-being, in the relationship between innovative climate and organizational citizenship behavior (OCB), in the banking sector of Vehari, Pakistan. The outcome of this study revealed that employee creativity and wellbeing could mediate the relationship between innovative climate and organizational citizenship behavior. More directly, employee creativity and wellbeing are the key driving forces, that enhance employee productivity and keep them motivated at the workplace (Azeem et al., 2019). The finding suggested that innovative practices can flourish in a friendly and innovative climate, that improves employee working behavior and in the process, increase their working efficiency and firm performance.

12. Limitations of the Study

First, this investigation was limited to the banking sector of Vehari, Punjab, Pakistan, because other areas of the country might

produce different characteristics and results. Finally, this research was based only upon the facts collected about the behavioral reflection of the employees such as employee creativity and wellbeing at work.

13. Scope for Further Research

It is suggested that future studies may investigate the psychological safety climate and employee empowerment, by using time-lagged data.

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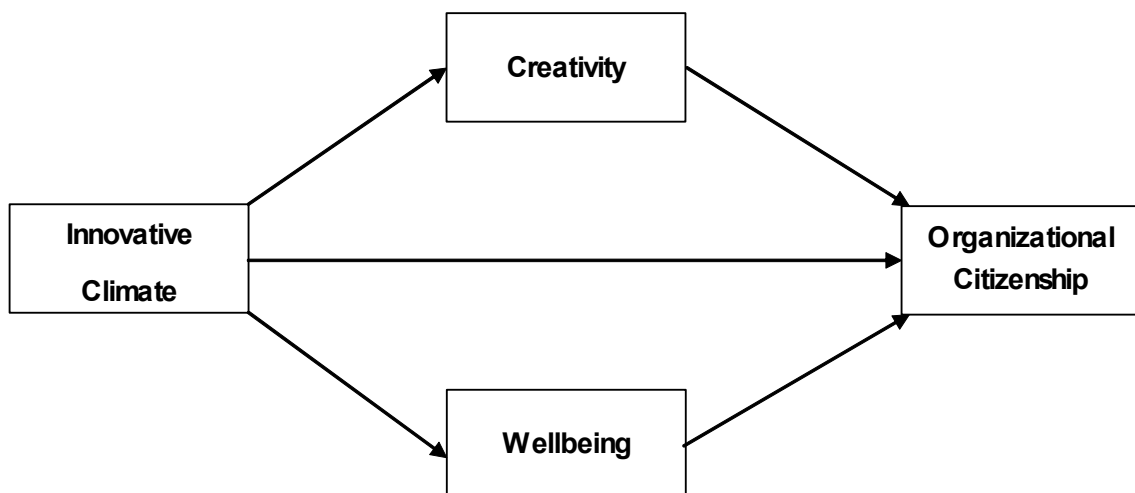
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Figure-1: Research Model



Source : Developed by Authors

Table-1: Results of Reliability and Validity Test in connection with Drivers of Employee Productivity

Constructs	Indicators	λ^1	A ²	CR ³	AVE ⁴
Employee Creativity	EC1	0.777	0.836	0.890	0.670
	EC2	0.829			
	EC3	0.838			
	EC4	0.830			
Innovative Climate	IC1	0.844	0.878	0.916	0.732
	IC2	0.864			
	IC3	0.846			
	IC4	0.869			
Organizational Citizenship Behavior	OCB1	0.831	0.871	0.912	0.721
	OCB2	0.857			
	OCB3	0.856			
	OCB4	0.851			
Wellbeing	WB1	0.792	0.872	0.907	0.661
	WB2	0.793			
	WB3	0.808			
	WB4	0.870			
	WB5	0.801			

Source: Primary Data computed using Smart PLS 3.26

Note: 1 Factor loadings; 2 Cronbach's alpha; 3 CR=Composite reliability; 4 AVE = average variance extracted

Table-2: Results of Fornell-Larcker Criterion

	EC	IC	OCB	WB
EC	0.819			
IC	0.569	0.856		
OCB	0.692	0.583	0.849	
WB	0.738	0.572	0.753	0.813

Source: Primary Data computed using Smart PLS 3.26

Table-3: Results of Hypotheses Testing in connection with Drivers of Employee Productivity

Hypothesis	Relations	Parameter Estimator	T-value	P-value
H ₁	Innovative climate → Organizational Citizenship Behavior	0.585	10.875	0.000
H ₂	Innovative climate → Employee Creativity	0.569	10.743	0.000
	→ Wellbeing	0.573	10.622	0.000
H ₃	Employee Creativity → Organizational Citizenship Behavior	0.241	3.287	0.001
	→ Wellbeing			
	→ Organizational Citizenship Behavior	0.476	6.605	0.000
H ₄	Innovative climate Organizational Citizenship Behavior → Employee Creativity	0.174	3.483	0.001
	→ Wellbeing			

*** P-value < 0.01.

Source: Primary Data computed using Smart PLS 3.26

**THE DETERMINANTS OF HUMANITARIAN SUPPLY CHAIN
EFFICIENCY - A CASE STUDY OF FLOOD DISASTER IN MALAYSIA**

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Abstract

The efficiency of the humanitarian supply chain, in helping flood victims, can be affected by various factors. However, only the determinants of agility, coordination and collaboration are critically discussed in this study. This research aims to predict whether the determinants of agility, coordination and collaboration significantly influenced the efficiency of the humanitarian supply chain, during the flood disaster, in a certain rural area in Kelantan, Malaysia. A survey was conducted, among 150 of respondents, who experienced the flooding. The data were further analysed, using Partial Least Square (PLS) analysis. The findings revealed that agility and coordination significantly influenced the efficiency of the humanitarian supply chain, among the three determinants. The implications of this study are vital to the government and private agencies, in the effort to offer an improved process of humanitarian aid to disaster victims.

Keywords: *Humanitarian Supply Chain, Coordination, Collaboration, Agility*

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1. Introduction

The humanitarian supply chain is a vital component in ensuring aid to the communities in need. The distribution of humanitarian relief involves many parties, multiple processes and policies, as well as a vast amount of resources. **Ho, Au and Newtom (2002)** pointed out that commercial supply chains also share many of these characteristics and hence the study of humanitarian supply chains is not an entirely distinct field. Although humanitarian supply chains operate in incredibly varied environments and circumstances, their essential functions are quite similar to the industrial supply chain. This suggests that it is worthwhile to determine the components, which facilitate the success of industrial and commercial supply chains and apply them to humanitarian aid supply chains, where relevant. Humanitarian supply chains are constructed in high-pressure environments and they are often short-term.

2. Literature Review

2.1. Humanitarian Supply Chain

Elements, within the humanitarian supply chain, include openness, accountability, fair competition, ethics, performance, quality and cost-effective practices. Relief aid is comprised of food, shelter, water and healthcare. These are typically provided in a relief camp environment. **Richard (2010)** highlighted the fact that aid operations incorporate procurement, transport and delivery of aid resources. There are five primary elements, which should be taken into account, in order to ensure effective and efficient disaster management by stakeholders. **Gizaw and Gumus (2016)** stated that 80% of disaster relief undertakings rely on successful logistics operations, to guarantee effective and efficient humanitarian supply chains.

2.2. Coordination

The process of aligning the various parties, in a humanitarian aid project, in such a way that fulfills their mutual aims, by effectively and efficiently delivering relief and resources to victims, is known as coordination. According to **Tripathi (2020)**, the organizational information coordination should be adopted by the humanitarian project because changes in the environment are captured by it. Moreover, coordination is especially vital in logistics processes (**Rajagopal, et.al., 2017**), notably in procuring and delivering resources (**Azlina et al., 2020**). Coordination mainly functions to guarantee that the humanitarian aid flow runs with efficiency and fluidity.

2.3. Collaboration

Collaboration refers to the process of two or more interdependent groups, making decisions mutually (**Sundram, et.al., 2020**). Greater cooperation among members of a supply chain typically results in enhanced performance and reduced general cost (**Mkumbo et al., 2019**). Conceptually, collaboration involves suppliers, firms and customers and it extends from the stages of procuring raw material all the way to the delivery of the finished product (**Sundram et al., 2017a**). Collaborating, with parties outside the supply chain, has an impact on collaboration within the supply chain as well (**Sundram, et.al., 2016**). Evidence indicates that collaboration in cases of disaster management is vital in improving the planning and execution of humanitarian aid efforts, due to the fact that it would be challenging for any party to manage such a situation independently. **Mohd, et.al., (2018)** asserted that every stakeholder in disaster management must cooperate for the best interests of the victims. The collaboration between the government,

NGOs, private institutions and the wider community is crucial (Sundram et al., 2017b), in facilitating relief aid during floods in Malaysia (Mohd, et.al., 2018). Different stages of a disaster require different characteristics within a supply chain. Before the disaster, the supply chain should be optimal and lean but during the disaster, the supply chain must be fully agile and responsive. Cooperation and collaboration must co-exist between all stages and parties involved (Selvaraju et al., 2019) so that humanitarian relief can be delivered as efficiently as possible.

2.4. Agility

Agility is defined as the capacity to create and sustain the necessary flexibility and responsiveness, to cope with unexpected or short-term logistics issues, uncertainties and risks. Agility is vital in ensuring that flood victims receive timely food and medical treatment, so that they can maintain a reasonable level of comfort and morale. Many studies emphasize the importance of agility and how it makes the humanitarian supply chain more sensitive and flexible to the needs of victims (Charles, et.al., 2010). Therefore, agility is a basic condition for an organization to function because it dictates organization's capacity to react to changes in an effective and timely way (Rajagopal et al., 2016)

3. Statement of Problem

The problem of humanitarian supply chains is the problem of collaboration, coordination and agility, within the supply chain. Irrera (2018) posited that failed communication and weak coordination can deeply compromise the delivery of humanitarian aid. This could be seen in the flooding disasters of 2004 in Peninsular Malaysia. In this situation, landslides obstructed primary routes and severely limited the ability to access relief centers and deliver necessary emergency supplies. This reflected weaknesses

in the coordination level of the humanitarian supply chain because disaster management operates in three levels and each level functions through a committee with its own responsibilities.

4. Need of the Study

The need of this study was to determine the relationship between agility, collaboration and coordination, towards the efficiency of humanitarian supply chain. This study is important to improve the practices and process of humanitarian supply chain in Malaysia.

5. Objective of the Study

The objective of this study was to identify the relationship between agility, collaboration and coordination, for efficient humanitarian aids supply chain practices in Malaysia.

6. Hypotheses of the Study

In this study, three hypotheses were formulated, for testing.

- i. Agility has significant effect on efficient humanitarian supply chain practices.
- ii. Collaboration has significant effect on efficient humanitarian supply chain practices.
- iii. Coordination has significant effect on efficient humanitarian supply chain practices.

7. Methodology

In this study, a quantitative approach was taken, to ascertain the significant influence of coordination, collaboration and agility, on humanitarian supply chain practices.

7.1 Sample Selection

A convenience sampling technique was utilized, to obtain 150 samples. The respondents were chosen, based on their experience of being victims of flood disasters in Kelantan. The data of the respondents were obtained from the committees, who provided the temporary shelter to the victims.

7.2 Sources of Data

The response rate of this study was 147 questionnaires out of 150, at 98 percent response rate and they were considered valid for use in the analysis.

7.3 Period of the Study

This study was conducted over a period of 24 months. The data collection took about one month. After data collection, the next process was data analysis, to assess the result.

7.4 Tool used in the Study

The items, used in this study, were adapted from several previous studies, to determine the coordination, collaboration and agility of the humanitarian aids (Selvaraju et al., 2019). The research framework model for efficient humanitarian supply chain is presented in **Figure-1**. Responses were collected on a five-point Likert scale, where 1=strongly disagree and 5=strongly agree.

8. Data Analysis

In this study, the Partial Least Square analysis, incorporating the structural model and measurement model, was used for the analysis. In the measurement model, the item loading value, for every reflective measurement item, exceeded the recommended threshold of 0.707, as suggested by **Hair et al. (2016)**. In addition, the composite reliability values exceeded 0.70, while the AVE value of each construct was greater than 0.50 (**Hair et al., 2016**). To assess the discriminant validity, as suggested by **Fornell and Larcker (1981)**, criteria were applied to evaluate discriminant validity (**Hair et al., 2016**). Under the structural model analysis, the assessment of path coefficient, hypothesis testing and R square values, were undertaken.

8.1 Demographic Factors

The majority of respondents were males (65.3per cent), compared to female respondents

at 34.7%. 47 percent of respondents' age ranged from 17 to 25, while 44.9 per cent of respondents proved to be single. The great majority of respondents were of Malay descent (90.5 per cent), who reported 1 and 5 family members (67.3 per cent).

8.2 Convergent Validity

Table-1 shows the items of collaboration, coordination and efficiency, meeting the threshold values, which explained their relevance to this study.

8.3 Discriminant Validity

In this research, the AVE was confirmed to be higher than the row and column values in **Table-2**, indicating that the constructs did not have any discriminant validity.

8.4 Structural Model

The structural analysis revealed that R Square (R^2) of 48.8 per cent, regarding the efficiency of humanitarian aid distribution, could be explained by the factors of agility, collaboration and coordination. The path coefficient, displayed in **Table-3**, indicated that the effect of agility ($\beta = 0.498$, $p < 0.01$) did have significant influence on the efficiency of the humanitarian supply chain. Thus Hypothesis 1 was supported. Furthermore, the effect of coordination ($\beta = 0.239$, $p < 0.01$) also significantly influenced the efficiency of humanitarian supply chain and hence the Hypothesis 3 was also supported. In contrast, the finding found that collaboration ($\beta = 0.041$, $p < 0.01$) did not significantly influence the efficiency of humanitarian supply chain. Hence Hypothesis 2 was rejected.

9. Findings of the Study

9.1 Relationship between agility and efficiency of humanitarian supply chain practices.

- ♦ The finding revealed that the agility exercised significant effect on efficiency of humanitarian supply chain practices.
- ♦ Hence agility is considered an important determinant of humanitarian supply chain practices.

9.2 Relationship between collaboration and efficiency of humanitarian supply chain practices.

- ♦ The finding revealed that collaboration did not have significant impact on humanitarian supply chain practices.
- ♦ The collaboration practices did not contribute to the efficiency of the humanitarian supply chain.
- ♦ Hence collaboration must improve better practices in future.

9.3 Relationship between coordination and efficiency of humanitarian supply chain practices.

- ♦ The finding revealed that coordination exercised significant effect on humanitarian supply chain practices.
- ♦ Therefore, coordination was identified as a determinant of efficiency of humanitarian supply chain.

10. Suggestion

The finding suggests that coordination, during the humanitarian aid, should ensure that everyone received the supply of aids. In other words, Co-ordination between different agencies or committees is essential for the success of disaster management.

11. Conclusion

To conclude, agility and coordination proved to have significant influence on humanitarian supply chain efficiency while collaboration did not have significant influence. Findings suggest

that the government and private agencies should plan their disaster management strategies, to make them more systematic and structured.

12. Limitation of Study

This study was limited to the respondents in Kelantan, which is an area mostly affected with flood.

13. Scope for Further Research

The future study could examine more flood victims, to assess the challenges and the effectiveness of the humanitarian supply aid.

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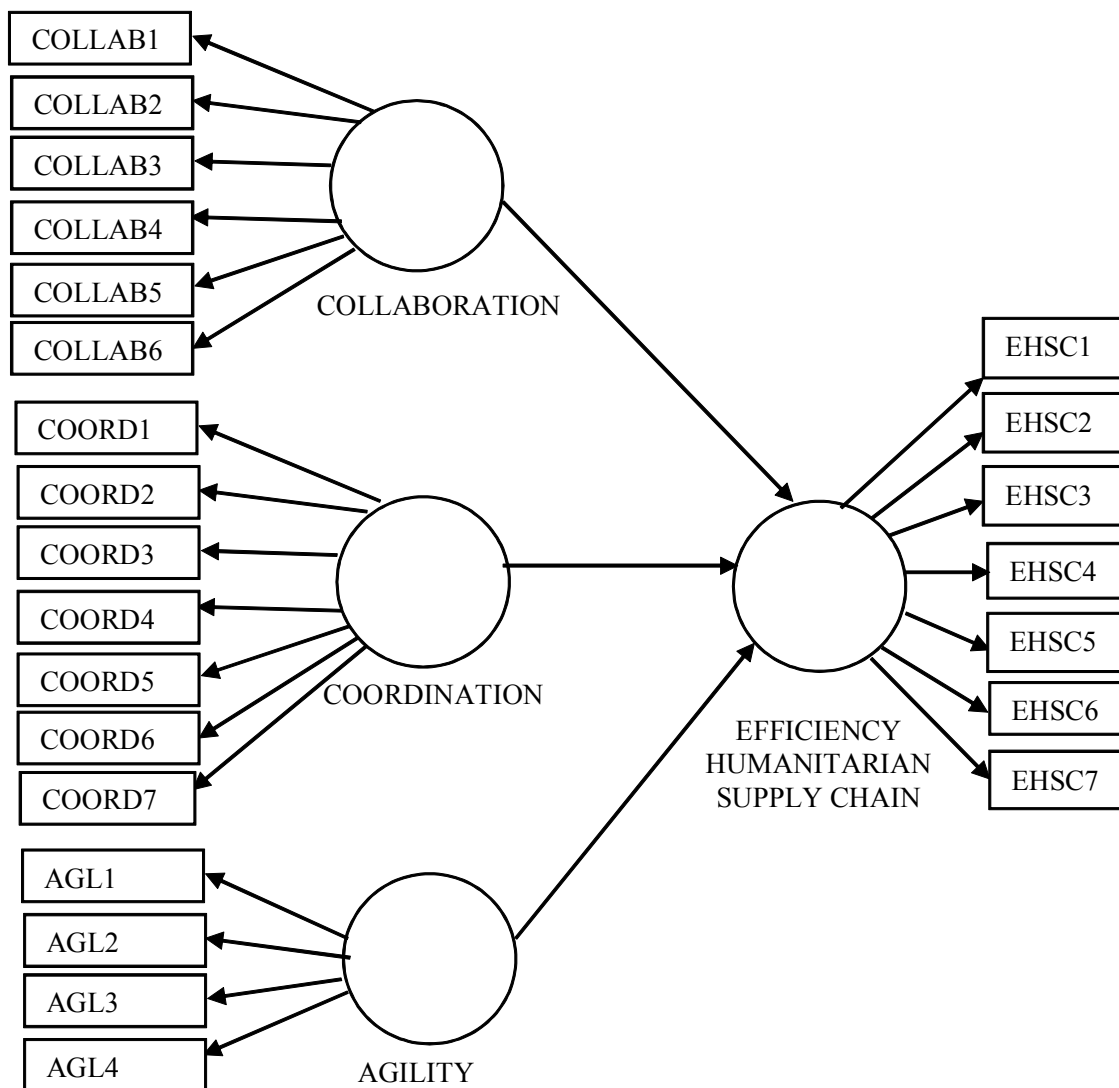
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Figure-1: Research Framework Model for Efficient Humanitarian Supply Chain



Source: Framed by Authors

Table-1: Convergent Validity of Dependent and Independent Variables

Constructs	Indicators	Factor Loading	(CR)	(AVE)
Agility	AGL1	0.743	0.801	0.511
	AGL2	0.851		
	AGL3	0.74		
	AGL4	0.47		
Collaboration	COLAB1	0.752	0.868	0.526
	COLAB2	0.738		
	COLAB3	0.6		
	COLAB4	0.815		
	COLAB5	0.627		
	COLAB6	0.793		
Coordination	COORD1	0.78	0.866	0.519
	COORD2	0.645		
	COORD4	0.668		
	COORD5	0.767		
	COORD6	0.778		
	COORD7	0.672		
	Efficiency Humanitarian Supply Chain	EHSC1		
EHSC2		0.74		
EHSC3		0.693		
EHSC4		0.756		
EHSC5		0.731		
EHSC7		0.735		

Source: Primary data computed using SmartPLS 3

Table-2: Discriminant Validity Taking AVE Square Roots

Constructs	1	2	3	4
1. Agility	0.715			
2. Collaboration	0.394	0.725		
3. Coordination	0.581	0.562	0.721	
4. Efficiency Humanitarian Supply Chain	0.653	0.372	0.551	0.736

Source: Primary data computed using Smart PLS 3

*Note: The diagonals (denoted in italic) represent the AVE while the off-diagonals are squared correlations

Table-3: Structural Analysis Indicating Relationship Between Variables of Study

Path Coefficient	B	SE	t	P-value	F Square	LL	UL	Result
Agility → Efficiency Humanitarian Supply Chain	0.498	0.10	4.982	0	0.308	0.296	0.665	H1: Supported
Collaboration → Efficiency Humanitarian Supply Chain	0.041	0.098	0.422	0.673	0	-0.127	0.249	H2: Not Supported
Coordination → Efficiency Humanitarian Supply Chain	0.239	0.081	2.954	0.003	0.075	0.066	0.382	H3: Supported

Source: Primary data computed using SmartPLS 3

EFFECT OF GREEN-MARKETING INTEGRANTS ON GREEN PURCHASE INTENTIONS (GPI): A PRAGMATIC STUDY FROM PAKISTAN

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Abstract

The current study's purpose is to grasp the consequence of GPV (Green-perceived-value), GPR (Green-perceived-risk), and GT (Green-Trust), in GPI (Green-purchase-intention). The present study's target population was private sector higher education and research institutions, located in Punjab. Questionnaires were administered to 220 working personnel. Nonprobability sampling techniques were used. Multiple tests were done through SPSS AMOS, for Descriptive analysis, Reliability statistics, Factor analysis and Frequency distribution. Analysis of movement structure was used to check the putative association among the variables. This research work's outcome revealed that Green's-perceived-value and Green's-trust were positively correlated with GPI while Green's-perceived-risk reported divergent association with the dependent variable.

Key Words: *Environment, Green Perceived Risk, Green Perceived Value, Green Trust and Greenpurchase Intentions*

JEL Codes: *I23, M31, O5, O56, P42, and Q01*

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1. Introduction

Green Marketing has been of immense significance since the last three decades. Due to the highly resilient business world, Green-Marketing is a significant groundwork to achieve an economic edge on several of the market's rivals (Arslan et al., 2017). Therefore, the present study examined sustainable marketing strategies in Pakistan and preference for product buying patterns. When businesses propose to implement Green-Marketing effectively, typical marketing activities are incorporated into the Green-Marketing concept for sustainable marketing development. Researchers tried to check the hypothesized relationship among GPR (Green Perceived Risk), GPI (Green purchase intention), GPV (Green perceived value), and GT (Green trust), in contemporary research work. Green Marketing is becoming more prevalent nowadays and its value needs to be realized. Companies need to consider environmental changes, to achieve the customers' confidence in a product. Consumer demand for goods has increased enormously world over, in the last decade, resulting in the depletion of natural resources, resulting in severe environmental degradation (Wu & Chen, 2014). Through purchasing Green goods, buyers possess the power to avoid or decrease ecological destruction. This paper would also like to sharpen the insight into green buying intentions, in the modern framework.

2. Review of Literature

Nowadays, ecological difficulties are discussed by consumers worldwide and production companies and institutions (Shukla et al., 2020). The Green Marketing notion is a development course, that comprises all marketing activities, which scientifically attempt to stimulate consumers' environmental outlook and foster environmental sustainability (Akbar

et al., 2014). In Pakistan, now more companies are struggling to undertake the Green Marketing approach, to categorize clients' Green Requirements, introduce environmentally friendly goods and highlight different Green Market segments, (Chahal et al., 2014). In Pakistan, businesses need to disclose more information about the ecological implications of the inventions or products, to gain the purchasers' Green trust in the long-term. GPI (Green purchase intention) is the customers' intention to purchase Green goods (Grimmer & Meghann, 2012). The term, intention, refers to the motivating factor, that determines consumers' Green-buying behavior (Martínez & De Leaniz, 2015). Based on the consumers' judgment, their net payback of any product or service, through overall ecology evaluation, is called Green Perceived Value (Shafiq et al., 2011). Nowadays, companies can enhance their customer base by providing them differentiated products and positioning them for Green value (Kahraman & Kazançođlu, 2019). Trust is a point of inclination, to rely on one artifact, grounded on the expectancy of capability, fidelity, and reliability of that object (Gan & Wang, 2017). GT (Green Trust) refers to a state of readiness, for relying on a good or invention founded on a belief of expectancy, resulting from reliability and believability. (Lam et al., 2016). Green Perceived Risk is to accept a mixture of negative results and uncertainties on purchasing Green inventions (Djakasaputra & Pramono, 2020). Evaluation of perceived risk could hinder consumer buying intentions. Consumers always try to lower their risk of any products instead of maximizing the effectiveness (Marakanon & Panjakajornsak, 2017).

A risk factor could have a very robust relationship with the Green purchasing intentions (Wasaya et al., 2021). Reducing the

risk factor could enhance the chances of purchasing intentions. A framework was constructed in this study, to study the Greenness of the product, its value, its risk and to maximize green purchasing intention. This research could enrich the Green Marketing and Relationship Marketing literature, as a modern management paradigm, for green buying intentions.

3. Statement of the Problem

The Green Marketing concept began in the 1970s and green products gained popularity in the 1990s (Zheng et al., 2021). Market in developed economies is rapidly switching over to green products. Businesses and customers have become more conscious of green marketing. But less research is reported on green markets in Asian economies (Chung, 2020). Hence there is ample room to study the green marketing integrant model, to increase purchasing intentions for saving the ecosystem.

4. Need of the Study

The present study has introduced a novel Ecological Purpose System, following environmental criteria. This contemporary study is unique because Green buying behavior was barely explored in the Punjab Province of Pakistan.

5. Objectives of the Study

Firstly, this work has three key objectives: Re-examining Green consumer behavior elements, through evaluating the Green customer background. Furthermore, to examine the determinants of successful green buying conduct. The present research will also conduct an inferential test, to validate the GPV and GPR, GT, and GPI relationships, as shown in Figure-1.

6. Hypotheses of the Study

The following hypotheses were formulated, for testing in this study.

H1: Significant association exists between GPV and GPI.

H2: Significant connection exists between GT and GPI.

H3: Inconsequential association exists between GPR and GPI.

7. Research Methodology

7.1. Sample Selection

Nonprobability sampling techniques were utilized with a qualitative approach. Based on purposive sampling, 220 faculty members were selected, from business management research departments of private sector higher education and research institutions, in the Punjab Province of Pakistan. The basic notion for faculty selection was that respondents were qualified professionals and researchers, who were already well aware of Green marketing and Green products and services. Demographic profile of respondents is shown in Table-1.

7.2. Sources of the Data:

Data were gathered through the self-administrated survey process, using a five-point Likert scale, required to test the hypotheses. Additional secondary data were acquired from journals and many other sources.

7.3. Period of Study

The survey instrument was administered, between December 2020 and January 2021, by researchers themselves.

7.4. Tools used in this Study

The measurement model and SEM-structural equation model were used, with the help of SPSS AMOS, to analyze the results.

8. Analysis of Effect of Green-Marketing Integrants on Green Purchase Intentions

According to the average questionnaire and design reliability (Table-2), at 0.826, it was

accurate for further study. 0.826 was more than the cutoff value of .70. Each variable reported a higher Cronbach Alpha value of 0.70. **Table-2** revealed that GPI reported the most negligible value, at 3.21 while the maximum value of GPI was 4.77 and the average GPI was 3.95. **Table-3** presents the results of the factor analysis.

To examine the sample suitability, Kaiser-Meyer-Olkin (KMO) method was applied. Since the KMO value was not less than .60, the data set was deemed to be adequate and factorable. The cutoff value for KMO, for further study, must be between 0 and 1 and the above value was found acceptable. Once the variables were correlated, the congruent matrix must show the correlation of $r = 0.3$ or more than .3. Multi collinearity led to a strong association of inter variables. The deciding matrix should be greater than 0.00001. The BTS is the second technique, that fits into an identity matrix, to analyze the correlation matrix. The GPI variable initially contained ten substances and after EFA loading below the line, G1, G5, G8, G9 were removed. Originally, Green Perceived value dimension contained five items. One element of the construct was dropped as a low value. The findings showed that the ongoing constructs remained significantly weighted with a single factor. In line with low-slung loading, one element out of five, GT2, was removed.

The GPR, with five items, was reduced to four items and an item, P1, was outlawed because of low loads for continuous analysis. The output of the structure demonstrated a good fit. The **Table-4** sums up the results and effects of the given model.

8.1. Testing of Hypotheses

The structured equation modeling (SEM) was used, to evaluate framed propositions.

Hypothesis testing revealed a significant relationship between GPI, GPVRP, and GTPR. At the same time, green perceived risk found no significant relationship with GPI. Hypotheses were tested, based on estimates, homogenous coefficient, acute proportion, and P-value. Overall estimates indicated that due to the acceptable relevant P-value, two hypotheses were accepted. The remaining hypothesis was rejected because of insignificant relationship. (**Table-5**). **Figure-2** provides the results of path analysis of the complete model.

9. Findings of the Study

- ◆ This study's empirical results revealed that green perceived trust and green perceived value were positively affected by the green purchase intention.
- ◆ The green perceived risk adversely impacted the green purchase intention.
- ◆ Finding revealed Green-risk to be a significant construct, at explaining customers' attitude towards buying procedure.
- ◆ This study demonstrated that endowing more resources to develop green trust and enhance green purchasing value, to reduce the risk, would enhance the green purchase intentions.

10. Suggestions

- ◆ This research work established a base for the marketing researchers, to design green value strategies, to develop good trust.
- ◆ Companies should consider buyers reluctant to negotiate about goods utility but businesses must be cautious if consumers are conscious of their Greenness.
- ◆ Green Products must provide conventional object functionality against non-Green products, to improve purchase intentions, for environmental preservation.

- ♦ It is crucial to educate conventional sellers, on more advanced marketing strategies, to increase the perceived green value and reduce the perceived green risk.

11. Conclusion

The current research work would provide a chance for the academicians and market researchers, to comprehend the green-marketing concept. The structural equation model showed green perceived value to be an essential link to green purchases. Green trust was another constructive predicate variable of GPI. The present study concurred with the primary literature, which found a positive GT association with GPI. A negative relationship was detected between GPR and the dependent variable. This research would improve the understanding about GPV, GT, and GPR and trigger the building process of GPI in the ecological management. Contrarily, GPR was insignificantly related to the GPI. Further, all propositions, formulated in the present study, were well supported. Hence investing funds to increase the green value and lessening green risk, is expedient to improve GT and GPI.

12. Limitation of the Study

The current research was limited to the Punjab Province, and future studies could increase the sample size, by considering other provinces.

13. Scope for Further Research

Future studies could expand the investigation, by comparing the developed countries' data. This quantitative analysis could lead to the functional and empirical aspect of the green environment and even provide substantial knowledge to the marketers, associated with the ecology.

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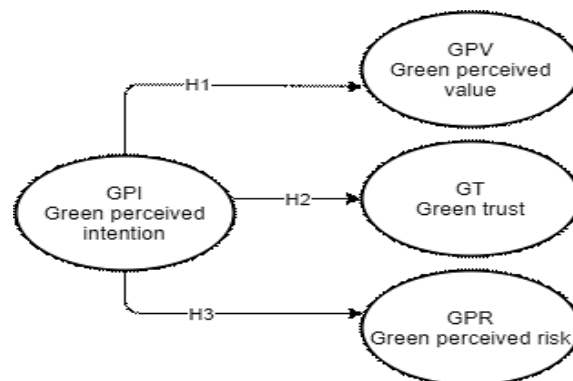
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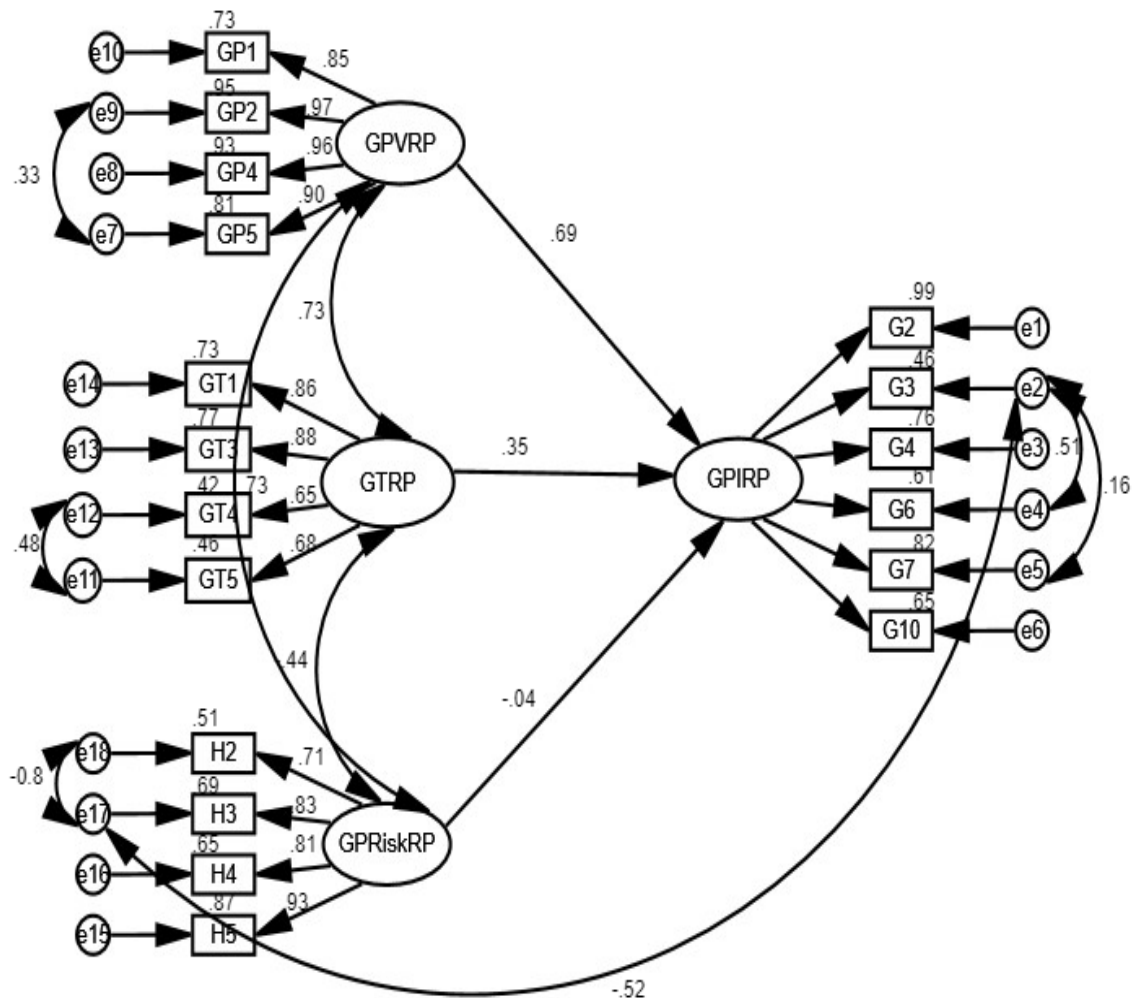
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Figure-1: Study model of the relationship between GPI, GPV, GT, and GPR Variables



Source: Developed by the Author

Figure-2: Path Analysis Result of a Complete Model



Source: Developed by the author using Amos 26 version

Table-1: Results of Participants Demographic Characteristics (N=220)

Variable	Characteristics	(F)	Variable	Characteristics	(F)	
Age	26 to 30	110	Education	MS/ M.Phil.	167	
	31 to 35	50		Ph.D.	53	
	36 to 40	31		Experience	1 to 3 Years	117
	Above 40	29			4 to 6 Years	60
Gender	Female	64		7 to 10 years	23	
	Male	156		Above 10 years	20	

Source: Developed from the primary data using SPSS 22.0 Version

Table-2: Results of Descriptive Analysis and Cronbach's Alpha Value as a Measure of Internal Consistency

Variables	N	Mini	Maxi	Mean	Std. Deviation	Cronbach's Alpha
GPI	220	3.21	4.77	3.9519	0.24605	0.812
GPV	220	3.10	4.50	3.7341	0.41208	0.840
GT	220	3.30	4.49	3.6955	0.27761	0.811
GPR	220	2.90	4.81	3.8274	0.44093	0.806

Source: Developed from the primary data using SPSS 22.0 Version

Table-3. Results of Postulations' Indicators of Factor Analysis for Measure of Sampling Adequacy

Paradigms	BTS	KMO	DCM	Sig
Green Purchase Intention	1778.894	0.788	0.011	000*
Green Perceived Value	300.601	0.750	0.324	000*
Green Trust	785.459	0.835	0.018	000*
Green Perceived Risk	740.633	0.816	0.048	000*

Source: Developed from the primary data using AMOS 26 version

Note: Measure of sampling Adequacy Kaiser-Meyer-Olkin (KMO), Determinants of correlation Matrix(DCM), Bartlette's Test of sphericity (BTS)

Table-4: Results of Structural Model Summary of All Variables for the Good Fit of the Model

Items	CMIN	SRMR	GFI	CFI	TLI	RMSEA
GPI	3.021	0.03	0.961	0.979	0.966	0.069
GPV	2.291	0.02	0.965	0.984	0.971	0.067
GT	2.285	0.03	0.996	0.988	0.955	0.058
GPR	2.465	0.04	0.966	0.971	0.955	0.061

Source: Developed from the primary data using AMOS 26 version

Table-5: Proposition Structural Path Estimation Analysis Results

Proposition	Structural Paths	Estimates	Std. loading	CR.	P	Results
P1	GPVPR→GPI	1.230	0.664	02.369	0.023	Accepted
P2	GTPR→GPI	2.206	0.922	02.210	0.021	Accepted
P3	GPRiskPR→GP	0.169	0.272	0.623	0.127	Rejected

Source: Developed from the primary data using AMOS 26 version

IMPACT OF FACTORS OF MOTIVATION ON EMPLOYEE MOTIVATION IN HIGHER EDUCATIONAL INSTITUTIONS IN COIMBATORE, INDIA

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Abstract

The organization success depends on the performance of the human capital. The performance depends on the level of motivation of the employees in the organization. The proper motivation, in each and every aspect, inside and outside the organization, would lead the organizations to achieve their vision, mission and goals. There are many factors which influence motivation. The level of impact of those factors varies as per their importance. Many researches have been undertaken to study the motivation in the various sectors. The education industry is the backbone of Indian economy, as the students are the future leaders of the country. Students' performance depends on the performance of the teachers and hence this study was initiated, to investigate the factors influencing motivation of teachers in higher education and their level of impact on the overall motivation. The study was carried out in the Coimbatore region.

Key Words: *Motivation, Work Environment, Monetary Rewards, Recognition, Career Development*

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1. Introduction

People management is considered to be one of the major challenges, faced by all industries, for sustaining competitiveness. Right employee identification and management of them is the major challenge for any organization (Sharma & Taneja, 2018). The high level of performance in the organization can be achieved only through the motivation of the human capital (Lolowang et al., 2019). If the factors, influencing the motivation could be identified, they can be enhanced by implementing proper motivational programmes (Belle & Cantarelli, 2017). Nguyen (2017), argued that the organization vision, mission and objectives can be achieved through adequate motivational inducements of employees. When the expectations of employees differ with the real organizational environment, demotivation may result. If the employees' motivation is high, they are more performance oriented, more satisfied and highly committed and they are loyal to the organization (Singh, 2013). Even though motivation influences the performance of employees, the research on factors of motivation and their impact on motivation is the ongoing topic as the employee motivation varies on different level and position of the employee (Lolowang et al., 2019). To understand motivation building factors and their effect on motivation, further investigation is needed. From the analysed research literature, it is evident that studies had been conducted to assess the effects of motivation in many industries. But there is limited focus on education industry. Skilled workforce is needed in any part of the world and hence students should be trained properly to take up their career. It depends mainly on the performance of the academicians. Therefore, a research gap was evident, in the influencing factors of motivation and their impact on employee motivation at higher education institution, in the sample City of Coimbatore.

2. Review of Literature

2.1. Influence of Motivational Factors on Motivation

Considering the previous reviews, important motivational factors, which influence the work performance, were considered for this research. Those factors include Workplace Environment, Monetary Rewards, Promotion, Non-Monetary Rewards and Career Development.

2.2. Influence of Workplace Environment on Work Performance

Ismail et al. argued that the conditions of physical workplace environment influence the employees' functions and it will determine the well-being of organizations. They explained that the physical work environment includes the internal and external office layout, temperature, comfort zone and also the work setting or arrangement (Ismail, A. et.al 2009) Supportive environment would lead to support for motivation and unsupportive environment lead to decreasing motivation (Porter et al., 2016). The physical workplace environment ultimately helps in the improvement of employees' experience and their performance. The proper execution of the job can be achieved through conducive workplace environment (Wong et al., 2020). People, working under inconvenient conditions, may end up with low performance and face occupational health diseases, causing high absenteeism and turnover. There are many organizations in which employees encounter working condition problems, related to environmental and physical factors. The employee disengagement is increasing and it becomes more important to make workplaces, that positively influence workforce (Conchie, 2013).

2.3. Influence of Monetary Rewards on Motivation

Guest (2002) argued that the key motivator, for the expected performance, is

reward (Guest, 2002). The rewards in the monetary term, such as bonus, profit share, fringe benefits and incentives have been introduced as better motivators for achieving productivity (Srivastava, A., et.al., 2001). The importance of money as a motivator has been consistently downplayed by most behavioral scientists like Herzberg, who point out the value of challenging jobs, feedback, cohesive work teams and other nonmonetary factors as stimulants to motivation (Devloo, T., et.al., 2015). However, money is considered as the crucial incentive of motivation because it is the means by which employees can fulfil their needs and desires (Robbins, 2017).

2.4. Influence of Recognition on Motivation

Promotions act as the evidence for recognition in a company. Promotion can enhance employee satisfaction. According to Kosteas (2011), hopes to get promotion, play a strong role. Employees, who are aware that they will never get promotion, will reduce their performance, until they think there will be opportunities to be promoted in the future (V. D. kosteas, 2011). The organization has to develop strategies to focus on employee satisfaction because performance levels are tied to motivation. Therefore, providing rewards, both tangible and in the form of praise, increase the happiness of employees and make them fully motivated (Abu Hassan Asaari et al., 2019). If the employees are given power through promotion and recognition, they will be fully committed to the organization (Maicibi, 2007).

2.5. Influence of Career Development on Motivation

According to Alnaqbi (2011), career development is considered as the employer's commitment or motivation initiative, for the wellbeing of the employees (Alnaqbi, 2011). Career development programs are vital to

employee development and workplace productivity. The ineffective or absence of career development programmes would impede work place productivity, by dampening the work place motivation (Pillay et al., 2015).

3. Statement of the Problem

The research studies, on performance and satisfaction, revealed that teachers' motivational level decides the success of students. The motivated teachers are more active, creative and more efficient. But in the present education system, the teachers are paid very low and they are not receiving any proper recognition. The lack of emotional satisfaction, reduces the passion towards teaching and adversely affects the motivation level. Clearly identifying the factors of motivation and their impact on overall motivation of the teaching professionals, would help the institutions to increase the performance.

4. Need for the Study

Motivating the higher education teachers plays a significant part in higher educational institutions. Teachers are the pillars of education system and they are intellectually sound persons, who always aim to change the destiny of the nation and the students. Modern educational institutions are facing problems of motivating their academicians effectively. Based on this identified issue, this study was designed, to identify the factors that promote motivation and the reasons why motivation is important for the academicians.

5. Objectives of the Study

- To examine the motivational factors, that influence teachers working in the educational institutions, in Coimbatore.
- To find out the impact of factors of motivation on teachers' work place motivation.

- To develop a model to depict the relationship between factors of motivation and over all motivation.

6. Hypotheses of the study

By analysing the reviews and objectives of the study, the following hypotheses were formulated and tested in the current research:

- H1: Work place environment has a positive impact on work place motivation.
- H2: Monetary rewards exercise positive impact on work place motivation.
- H3: Recognition has positive impact on work place motivation
- H4: Career development has positive impact on work place motivation

7. Research Methodology

7.1 Sample Selection

Teachers in the engineering colleges in Coimbatore, of Tamil Nadu, India, were considered to be the sample population. The sample size was calculated by using the proportion required for the SEM analysis. The proportions prescribed by the experts are 10 samples per item. In our study, six constructs, with 29 items, were used. Hence the sample size, required for the study, was 290 samples. If the sample size was more than 500 samples, SEM model would be effective. Hence the total of 550 samples was preferred for the study (**Garson, 2016**). In Coimbatore, there are 76 engineering colleges, in which 5472 college teachers are working. The list of higher education teachers was collected from the colleges and the questionnaire was administered, by using the simple random sampling method. Based on the completed questionnaire, the final sample size, for this research study, was 576. The sample size is explained in **Table-1**.

7.2 Sources of Data

The primary data were collected, by using structured questionnaire, to find the impact of motivational factors on the teachers' work place motivation.

7.3 Period of the Study

The data were collected during the period 2019-2020.

7.4 Tool used in the Study

Structural equation modelling is a multivariate statistical analysis technique, that is used to analyze structural relationships between measured variables and latent constructs. SEM was employed for performing the path analysis. Path analysis measures causal relationships between constructs. SEM was used by the Researcher, to evaluate the reliability and validity of the constructs and to construct the motivation models. SMART PLS 3 was used for performing SEM.

8. Data Analysis and Interpretation

8.1 Reliability and Validity Analysis

It is necessary to establish convergent and discriminant validity as well as reliability, while doing a confirmatory factor analysis. Confirmatory factor analysis (CFA) is a statistical technique, used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis, that a relationship exists between observed variables and their underlying latent constructs (**Suhr D, 2006**). The factors have to demonstrate adequate validity and reliability. The following tools were employed, for the assessment of the measurement model: Composite Reliability (CR), Convergent Validity and Discriminant Validity.

From **Table-2**, the final values of Cronbach's Alpha were found to be greater than 0.6, which confirmed the reliability of the

research instrument. As per the **Table-3**, the composite reliability values were found to be higher than 0.6, which indicated that all the constructs had achieved high level of internal consistency and reliability. The AVE values were also found to be above the threshold value of 0.5. Thus, it can be inferred that the six constructs reported high levels of convergence. **Table-4** displays the values of AVE and squared correlations. Values in brackets are square roots of AVE scores, which should be greater than the squared correlation values, to establish non-existence of any relationship. It can be inferred that there was no relationship among the constructs and discriminant validity, for the research instrument, to be established.

8.2 Impact of Motivational Factors on Motivation-SEM Model

After establishing the reliability and validity of the latent variables in the measurement model, the structural model (also referred to as the innermodel) was used to test the relationship between endogenous and exogenous variables. In PLS-SEM, structural model assessment includes path coefficients, to evaluate the significance and relevance of structural model relationships and R^2 value to evaluate the model's predictive accuracy (**Hair et al, 2013**). The Workplace Environment (WPE), Monetary Rewards (MR), Recognition (REC) and Career Development (CD) were taken as independent variables and Motivation (MO) was taken as the dependent variable.

The partial least square structural equation modelling was carried out, in SMART PLS 3 software. The consistent PLS algorithm was carried out, to do confirmatory factor analysis. Reliability and validity were tested and then path analysis was carried out to formulate the model. The formulated structural equation model is given in the **Figure-1**. Bootstrapping, with complete

bootstrapping option was carried out, to find standard error and the T-values. Comparing the T-Value with 95% percentage confidence value of 1.96, the above hypotheses were tested.

8.2.1 Model Predictive Summary

In **Table-5**, the R- square value of 0.823 showed that the four factors of workplace environment, monetary rewards, recognition and career development could explain 82.3 of motivation and thus these four factors could highly predict motivation.

8.2.2 Model Fit Summary

It can also be observed from **Table-6** that the SRMR(Standardized Route Mean square Residual) value was 0.063 and the NFI (normed Fit index) was 0.93. The d_ULS(the squared Euclidean distance), for this model, was 0.251 and d_G(the Geodesic distance) was 0.342. All the indices of good fit indicated that the model was fit.

8.2.3 Path Co-efficient

Figure-1 shows the path coefficient, for the direct relationship between motivation and other four constructs. Nonparametric bootstrapping routine, advocated by (**Vinzi, Chin.W, 2010**) was used on 122 data points and 5000 samples. Bootstrapping is a re-sampling approach, that draws random samples (with replacements) from the data and uses these samples to estimate the path model multiple times under slightly changed data constellations (**Hair et al, 2013**).

The main purpose of bootstrapping is to calculate the standard error of coefficient estimates, in order to examine the coefficient's statistical significance(**Vinzi, V.E., Chin., 2010**). From **Table-7**, it was found that the path coefficient for workplace environment on brand equity was 0.189 and t value was 3.844, which were significant at 95% confidence level. Hence it can be concluded that **Workplace**

Environment has significant positive direct effect on motivation. The path coefficient, for monetary rewards on motivation was 0.594 and t value was 2.777, which were significant at 95% confidence level. Hence it can be concluded that **monetary rewards have significant positive direct effect on motivation.** The path coefficient, for recognition on motivation was 0.239 and t value was 4.154, which were significant at 95% confidence level. Hence it can be concluded that **recognition has significant positive direct effect on motivation.** The path coefficient for career development on motivation was 0.540 and t value was 9.677, which were significant at 95% confidence level. Hence it can be concluded that **career development has significant positive direct effect on motivation.**

9. Findings of the Study

As all the significance values were less than 0.05, all the hypothesized variables like workplace environment, monetary rewards, recognition and career development were found to be significant and they contributed toward teachers' motivation, in higher education institutions under study. By comparing the path coefficient values, it was clearly noted that the monetary rewards did have the highest score of 0.594, followed by recognition at 0.239. From the path coefficient values, it can be concluded that the monetary reward was the most influencing factor on motivation. The second important influencing factor was recognition.

10. Suggestions

Monetary reward was the most effective variable, due to its high path coefficient value and hence it has been suggested that monetary reward needs to be systematically designed, in higher educational institutions, to maintain the motivated level of teaching workforce. It refers not only to higher salaries but also to a

combination of fringe and non-fringe benefits, various facilities and the quality of service regarding timely provision of benefits, that would make a compensation package more attractive. The significant impact of recognition demands the attention of higher educational institutions, to provide timely and relevant feedback to the teachers and to design its promotion policies according to contemporary practices of human resource management. The promotion should be based on proper performance appraisal, with the objective measurement rather than subjective measurement.

11. Conclusion

This study focused on four factors of motivation, which were work environment, monetary reward, and recognition and career development and their influence on motivation. The study results indicated that all the four factors of motivation did have positive effect on motivation. Based on the model formulated, it was found that the monetary reward reported the highest impact on motivation in educational industry in Coimbatore. The recognition also recorded higher impact and hence educational institutions should concentrate on enhancing these two factors.

12. Limitations of the Study

The research was confined only to the colleges in Coimbatore and hence these findings can not be generalised. It is very likely that the influences affecting teachers' motivation might vary from one subject to another but this aspect was beyond the scope of this study. Motivation factors were not classified into intrinsic and extrinsic motivational factors.

13. Scope for Further Research

This study examined work environment, monetary rewards, and recognition and career development towards motivation, based on

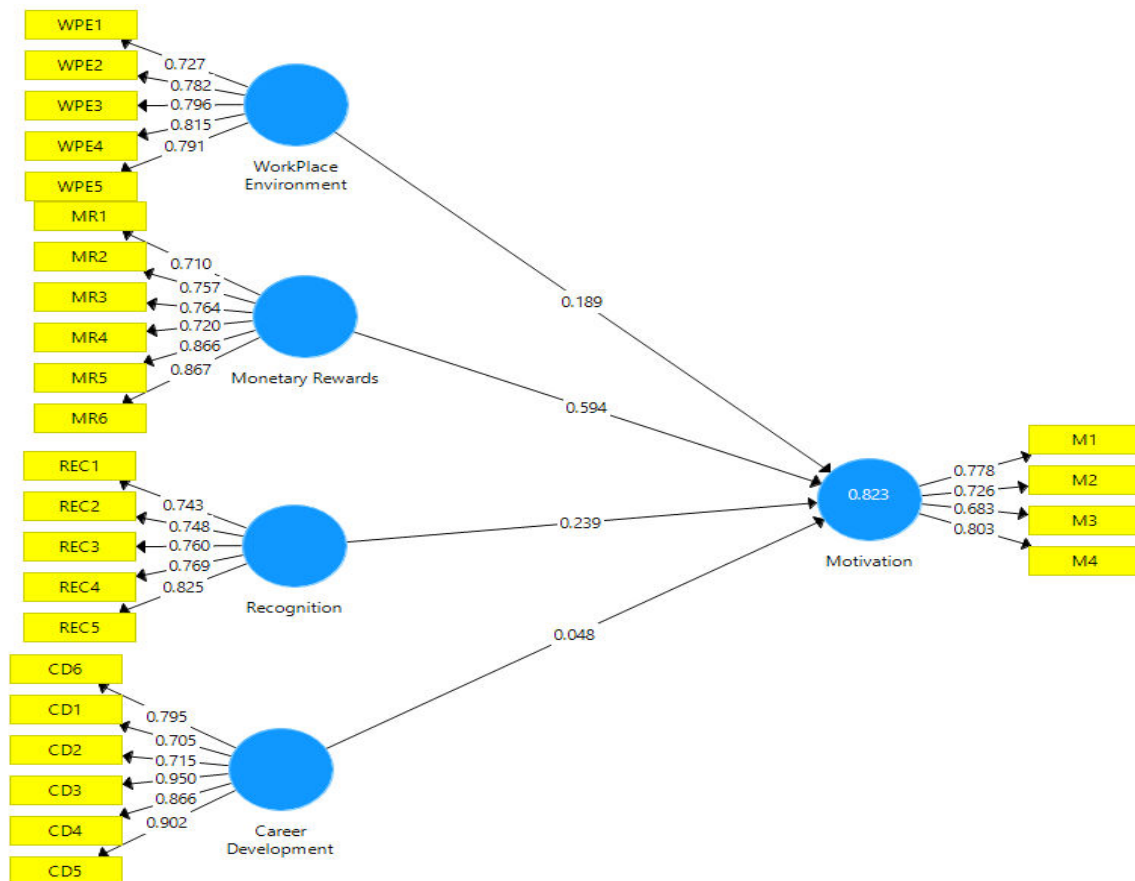
earlier literature, for education industry. Future research should test other factors, influencing motivation as well. The direct relationship between motivation and its influencing factors was tested in this study. The indirect relationship between the factors can also be tested in further research.

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Figure-1: Structural Equation Model for Measurement of Motivation in terms of Factors of Motivation



Source: Primary Data output from Smart PLS 3.

Table-1: Number of Questionnaires Accepted for the Study

Size determined as per formula	No. of questionnaires distributed	No. of questionnaires received	No. of questionnaires accepted
550	600	585	576

Source: Primary Data computed using Smart PLS 3

Table-2: Results of Total Reliability of Research Instrument

Cronbach's alpha	Cronbach's alpha based on standardized items
0.768	0.734

Source: Primary Data computed using Smart PLS 3

Table-3: Results of Composite Reliability for Research Instrument

Construct	AVE	Composite Reliability
Work Place Environment	0.699	0.932
Monetary Rewards	0.683	0.928
Recognition	0.681	0.912
Career Development	0.621	0.867
Motivation	0.592	0.879

Source: Primary Data computed using Smart PLS 3

Table-4: Results of Discriminant Validity for Research Instrument

	WPE	MR	REC	CD	MO	WP
WPE	(0.769)					
MR	0.671	(0.790)				
REC	0.516	0.486	(0.836)			
CD	0.725	0.669	0.448	(0.755)		
MO	0.674	0.678	0.434	0.567	(0.798)	

Source: Primary Data computed using Smart PLS 3

Table-5: Quality Criteria-R-Square

	R Square	R Square Adjusted
MO	0.823	0.819

Source: Primary Data computed using Smart PLS 3

Table-6: Model Fit Summary - Results of Motivation Measurement Model

Model	SRMR	NFI	D_ ULS	D_ G
Study model	.063	0.93	0.251	0.342
Recommended value	Less than 0.08	Greater than 0.9	0.349 (Upper limit at 95% Confidence Interval) Less than Upper limit	0.578 (Upper limit at 95% Confidence Interval) Less than Upper limit

Source: Primary Data computed using Smart PLS 3

Table-7: Measurement of Motivation–Results of Hypotheses Testing and Structural Relationship

Hypotheses	Path	Path Coefficients	Std. Error	T Statistics	P Values	Decision
H1	WPE ->MO	0.189	0.055	3.844	0.000	H1 Supported
H2	MR ->MO	0.594	0.055	2.777	0.006	H2 Supported
H3	REC ->MO	0.239	0.031	4.154	0.000	H3 Supported
H4	CD ->MO	0.048	0.056	9.677	0.000	H4 Supported

Source: Primary Data computed using Smart PLS 3

SHORT AND LONG-RUN RESPONSE OF ECONOMIC GROWTH TO OIL PRICES IN ALGERIA: A COMBINED COINTEGRATION APPROACH

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Abstract

Oil prices had experienced sharp fluctuations during the last decades. A vast literature has been devoted to analyzing the macroeconomic effects of oil prices. This paper aims to contribute to this research field, by examining the impact of oil prices on economic growth in Algeria, for the period 1976-2019. The novelty of the study is that it employs the combined cointegration technique, to test the presence of long-run relationship between oil prices and economic growth. The empirical analysis revealed that there was long-run cointegrating relationship between the two variables. Moreover, the different estimators indicated that oil prices positively impacted the economic growth in the long-run while the error correction model supports the presence of negative and limited short-run effects, that disappeared after about one year and a half from the occurrence of the oil shock.

Keywords: *Economic growth; oil prices; combined cointegration; Algeria.*

JEL Code : *C22; Q41; Q43.*

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1. Introduction

Oil is crucial for almost all economic activities, including power generation, transport, and industry. Both oil-importing and oil-exporting countries are affected by oil price fluctuations. The world crude oil market has experienced many oil price shocks, starting from the 1970s. The latest sharp decline in oil prices, during the first half of 2020, was attributed to the drop in the demand for crude oil, due to the outbreak of the COVID-19 pandemic. The world oil price fluctuations may be due to various supply-side factors, such as political instability and demand-side factors, such as the exponential growth of oil demand by some emerging countries, including China, Russia, and India.

The literature, related to oil price fluctuations, has rapidly expanded, starting from the 1970s oil shocks. The first strand of literature has concentrated on analyzing factors affecting oil price fluctuation while the second strand has instead investigated the effects of oil price fluctuations on the economy. The impact of oil prices on economic growth, in both oil-importing and oil-exporting countries, has attracted particular attention. Studies, focusing on the economic effect of oil prices, have reached different and sometimes conflicting results.

2. Review of Literature

Several writers have examined the macroeconomic effects of oil prices on oil-exporting countries. **Emami and Adibpour (2012)** analyzed the effects of crude oil prices, on GDP in Iran, over the period 1959-2008. The authors concluded that there was positive association between oil revenues and output growth. **Esfahani et al. (2013)** also examined the relationship between oil price and GDP in Iran, using the VAR model, during the period 1979:Q1-2006:Q4. The impulse response

functions revealed that the Iranian economy adjusted quickly to oil export shocks. **Ayadi (2005)** used the VAR model, to check the reaction of GDP to crude oil price fluctuations in Nigeria, during the period 1980-2004 and concluded that a rise in oil prices did not increase industrial output during the study period. **Iwayemi and Fowowe (2011)** checked the impact of oil prices on economic growth in Nigeria. The results indicated that oil shocks had no impact on the economic growth. Focusing on Saudi Arabia as an important oil-exporting country, **Algahtani (2016)** analyzed the relationship between oil prices, GDP, investment, government expenditure, and trade balance, over the period 1970-2015. The findings strongly indicated a positive and significant long-run relationship between oil prices and Saudi GDP.

Turning to the case of Algeria, one may note the scarcity of empirical studies, to evaluate the response of economic growth to oil prices. **Berument et al. (2010)** examined the crude oil prices-GDP linkages, in 16 MENA countries, including Algeria, from 1969 to 2003. The study revealed that crude oil prices did positively affect GDP, in almost all oil-exporting countries. **Refafa and Adouka (2017)** checked the impact of crude oil prices on economic activity, over the period 1980-2014. The results showed that the estimated coefficient was positive and statistically significant, at 10 per cent, which indicated the existence of a positive correlation between oil prices and GDP in Algeria. Recently, **Benameur et al. (2020)** explored the crude oil price-economic growth linkages in Algeria, based on quarterly data, covering the period 1999-2019. The authors concluded that a positive shock on oil prices positively affected the GDP, during the three quarters, following the occurrence of the shock.

3. Need of the Study

Statistics of the British Petroleum Company revealed that Algeria produced 1.486 million barrels daily, in 2019 while its reserve was estimated to be 12.2 thousand million barrels. Since oil production and exports are crucial for the Algerian economy, this study aims to assess the potential effects of oil price fluctuations on the Algerian economy. This analysis would help in the formulation of appropriate policy recommendations.

4. Objectives of the study

The objective of the study was to contribute to the existing literature, by empirically analyzing the short-run and long-run effects of oil prices on economic growth in Algeria, based on an advanced cointegration test.

5. Hypotheses of the study

Based on the previous literature, the following hypotheses were framed for testing in this study.

H1: Oil prices have a positive impact on the Algerian gross domestic product in the short-run.

H2: Oil prices have a positive impact on the Algerian gross domestic product in the long-run.

6. Research Methodology

6.1 Sample selection

Given the scarcity of studies on the effects of oil price in Algeria, this study aims to fill this gap by analyzing the potential effects of oil price fluctuations on economic growth in Algeria.

6.2 Sources of Data

The data, used in the empirical investigation, were gleaned from different sources. Economic growth was measured by real GDP extracted from the World Development Indicators database (World Bank). The oil prices were represented by the Brent crude oil price and West Texas Intermediate oil prices. The two prices were extracted from the Statistical Review of World Energy database.

6.3 Period of the Study

The study examined the response of GDP to oil prices in Algeria, during the period 1976-2019.

6.4 Tools used in the Study

The current study conducted a cointegration analysis, to estimate the effects of oil prices on GDP. In fact, the cointegration analysis is of great interest as it allows checking the long-run relationships between variables. The previous literature proposed many cointegration tests, such as the **Engle and Granger (1987)** cointegration test, **Johansen (1988)** maximum eigenvalue and trace tests for cointegration, **Banerjee et al. (1998)** cointegration test and the autoregressive distributed lag approach, proposed by **Pesaran et al. (2001)**. Given the shortcomings of these tests, **Bayer and Hanck (2013)** developed the combined cointegration test. The **Bayer and Hanck (2013)** cointegration test combines four cointegration tests: **Engle and Granger (1987)** test, **Johansen (1988)** test, **Boswijk et al. (1994)** test and **Banerjee et al. (1998)** test. The combined cointegration test was conducted as follows:

$$EG - JOH = -2[\ln(P_{EG}) + \ln(P_{JOH})] \quad (1)$$

$$EG - JOH - BO - BDM = -2[\ln(P_{EG}) + \ln(P_{JOH}) + \ln(P_{BO}) + \ln(P_{BDM})] \quad (2)$$

Where *EG* is the **Engle and Granger (1987)** test, *JOH* is the **Johansen (1988)** test, *BO* is the **Boswijk et al. (1994)** test and *BDM* is the **Banerjee et al. (1998)** test. Before testing cointegration, the stationarity of variables was checked, by using the Augmented Dickey-Fuller (ADF) test, developed by **Dickey and Fuller (1981)**, Phillips-Perron (PP) test, developed by **Phillips and Perron (1988)**, and Dickey Fuller Generalized Least Squares (DF-GLS) test, developed by **Elliott et al. (1996)**. Then, the short-run coefficients were estimated through the error correction model and the long-run coefficients, through the Fully Modified Ordinary Least Squares (FMOLS), Dynamic Ordinary Least Squares (DOLS), and Canonical Cointegrating Regression (CCR).

7. Data Analysis

7.1. Results of Unit Root Tests

Results of unit root tests are reported in **Table-1**. There was strong evidence that all variables were not stationary at levels. It was, therefore, crucial to differentiate them and reexamine stationarity. Hence the null hypothesis of unit root was rejected, at the one per cent level for almost all variables. Accordingly, the different unit root tests supported the idea that the Algerian GDP and crude oil prices (Brent and WTI) were stationary at first difference.

7.2. Results of the Combined Cointegration Test

After testing the stationarity of variables, the presence of long-run relationship was tested. The results of the combined cointegration test are displayed in **Table-2**. The Table shows that cointegration was confirmed at the 10 per cent level when the reduced form of the combined cointegration was considered and at the 5 per cent level, when the full version of the combined cointegration test was considered. Overall, the combined cointegration test revealed that oil

prices and GDP were cointegrated in Algeria, which confirmed the existence of long-run relationship between oil prices and GDP.

7.3. Long-run Effects of Oil Prices on Economic Growth in Algeria

Given the presence of long-run relationships between oil prices and GDP, the impact of oil price fluctuations on economic growth was estimated. Results are presented in **Table-3**. It is evident that the Brent and WTI crude oil price coefficients were positive and statistically significant while using the FMOLS, DOLS, and CCR. In other words, oil prices exerted positive long-run effects on Algerian economic growth, confirming the robust long-run impact of oil prices. Hence **H2: Oil prices have a positive impact on the Algerian gross domestic product in the long-run**, was accepted. These results corroborated those of **Berument et al. (2010)** and **Benameur et al. (2020)**, who concluded the presence of positive effects of oil price on GDP in Algeria.

7.4. Short-run Effects of Oil Prices on Economic Growth in Algeria

Table-4 presents the results of error correction model, used to assess the short-run effects of crude oil prices on economic growth. The findings revealed that the error correction term was negative and statistically significant, confirming that oil price and economic growth were cointegrated. **Table-4** also shows that the delayed GDP coefficients were positive and significant at one per cent, which implied that the GDP, in a given year, was affected by GDP in the previous year. Finally, the coefficients of the crude oil prices were negative and statistically significant at the one per cent level. The effects were negative but very weak in the short-run. In other words, rise in crude oil price affected GDP negatively in the short-run. Hence **H2: Oil prices have a positive impact on the**

Algerian gross domestic product in the long-run, was rejected. However, the negative effects were weak and in the long-run, the effects were positive and more important.

7.5. Impulse Response Function Analysis

The impulse response function was used, to examine the impact of a shock on the explanatory variable (oil prices), on the endogenous variable (GDP). **Figure-1** depicts the results of Cholesky impulse function. When a positive shock was experienced by Brent or WTI oil price in the current period, the response of GDP was weakly negative, during the first period and started increasing, from the second period, with a rising trend in the long-run. These findings confirmed the results, displayed in **Table-3** and **Table-4**, according to which short-run effects of oil price shocks were negative while the long-run effects were positive. The impulse response function analysis revealed that the negative effects would disappear after one year and a half and then reported a rising trend in the long-run.

8. Findings of the Study

The empirical analysis indicated that:

- **Bayer and Hanck(2013)** combined cointegration test revealed that there was long-run cointegrating relationship between oil prices and GDP in Algeria.
- FMOLS, DOLS, and CCR estimators strongly confirmed that oil prices positively affected the economic growth in the long-run.
- The error correction model reported the presence of negative and weak short-run effects.
- The impulse response function analysis revealed that the negative effects would disappear after one year and a half from the occurrence of the oil shock.

9. Suggestions

The results of this study would offer significant inputs to policymakers. Indeed, it has been shown that the impact of oil prices on economic growth was negative in the very short-run. These findings remind us that it is crucial to be prepared for these shocks. Several measures may be undertaken to avoid or minimize the negative effects of oil shocks on the economy in the short-run. Policymakers should initiate more efforts to diversify the economy and reduce its dependence on oil revenues. This may be done by developing other non-oil economic sectors.

10. Conclusion

This study would contribute to the existing literature, by examining the short-run and long-run effects of oil price fluctuations, on economic growth in Algeria, between 1976 and 2019. The empirical analysis was mainly based on the combined cointegration test developed by **Bayer and Hanck (2013)**. The different unit root revealed that all variables were integrated at order one. The presence of cointegration was tested, by using the combined cointegration test. The analysis demonstrated that oil prices and economic growth reported a long-run cointegrating relationship. While estimating the impact of oil prices on economic growth by using the CCR, DOLS, and FMOLS, the findings indicated that oil prices positively affected the economic growth in the long-run. In the short-run, the error correction model revealed that the impact of oil prices was negative. Finally, the impulse response function analysis revealed that a positive shock on oil prices induced a negative and quick reaction of GDP. But the negative effects would disappear after one year and a half.

11. Limitations of the Study

This study employed new econometric tools and reached interesting results on the impact of

oil prices on economic growth in an oil-exporting country like Algeria. However, results of the study may not be generalized and applied to other oil-exporting countries. Furthermore, the current study examined only the impact of oil prices on economic growth as a measure of economic performance.

12. Scope for Further Research

Analyzing the impact of oil prices for a group of oil-exporting countries, such as OPEC members, would be useful. Advanced panel data econometric techniques, such as the Pooled Mean Group, estimator developed by **Pesaran et al. (1999)**, may be employed to deal with sample heterogeneity. Moreover, future studies may explore the impact of oil prices on other macroeconomic factors, such as investment, stock markets and inflation.

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Table-1: Results of Stationarity based on Unit Root Tests

	ADF test		PP test		DF-GLS test	
	constant	constant and trend	constant	constant and trend	constant	constant and trend
Level						
GDP	-0.826	-2.179	-1.020	-2.083	0.493	-2.012
BRENT	-1.744	-1.783	-1.804	-1.843	-1.766*	-1.808
WTI	-1.801	-1.797	-1.854	-1.851	-1.822*	-1.839
First différence						
GDP	-3.832***	-3.821**	-3.705***	-3.712**	-3.580***	-3.833***
BRENT	-6.236***	-6.163***	-6.231***	-6.154***	-6.314***	-6.300***
WTI	-6.311***	-6.233***	-6.309***	-6.227***	-6.316***	-6.315***

Source : The authors' own computation. ***, ** and * indicate the rejection of the null hypothesis at the 1, 5 and 10 per cent levels.

Table-2 : Results of Combined Cointegration Test between GDP and Oil Prices

	<i>EG - JOH</i>	<i>EG - JOH - BO - BDM</i>	Decision
<i>GDP ~ BRENT</i>	9.739*	26.085**	cointegrated
<i>GDP ~ WTI</i>	9.702*	26.069**	cointegrated

Source : The authors' own computation. ***, ** and * indicate the rejection of the null hypothesis at the 1, 5 and 10 per cent levels.

Table-3 : Long-run Effects of Oil Prices on GDP in Algeria

	FMOLS		DOLS		CCR	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
<i>GDP ~ BRENT</i>						
<i>BRENT</i>	0.127***	0.003	0.083**	0.014	0.104***	0.001
<i>constant</i>	24.346***	0.000	24.529***	0.000	24.431***	0.000
<i>GDP ~ WTI</i>						
<i>WTI</i>	0.142***	0.002	0.092**	0.012	0.117***	0.001
<i>constant</i>	24.284***	0.000	24.488	0.000	24.381***	0.000

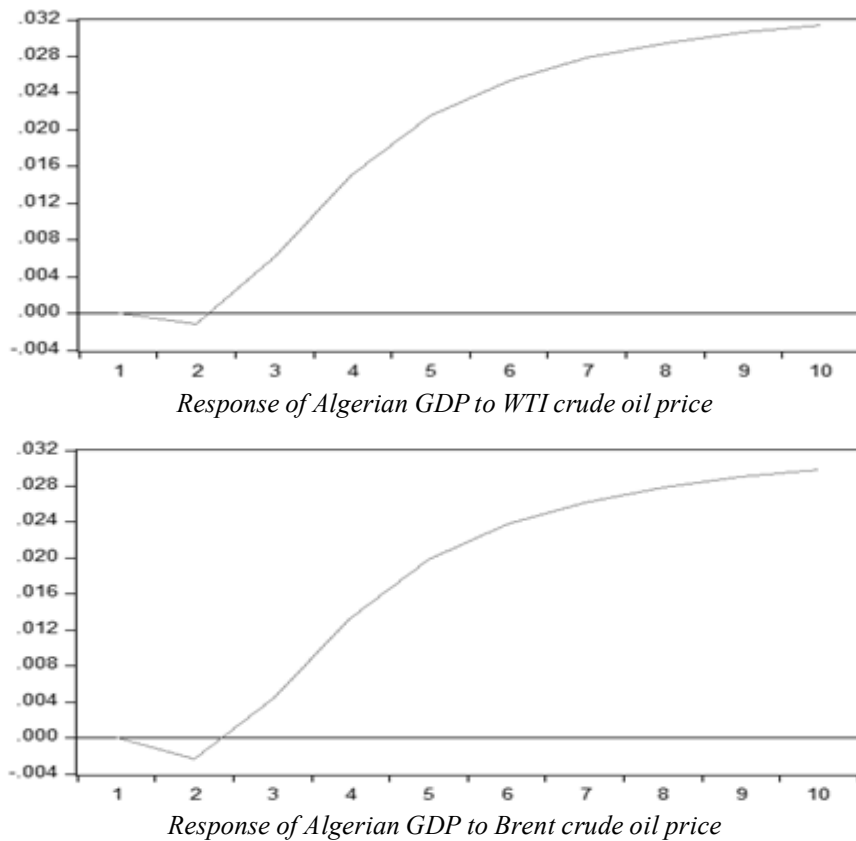
Source : The authors' own computation. ***, ** and * indicate the significance at the 1, 5 and 10 per cent levels.

Table-4: Short-run Effects of Oil Prices on GDP in Algeria

	Coefficient	p-value
<i>GDP ~ BRENT</i>		
<i>Error correction term</i>	-0.222***	0.000
Δ <i>BRENT</i>	-0.036***	0.000
Δ <i>GDP</i>	0.477***	0.000
<i>constant</i>	0.015***	0.000
<i>GDP ~ WTI</i>		
<i>Error correction term</i>	-0.232***	0.000
Δ <i>WTI</i>	-0.036***	0.000
Δ <i>GDP</i>	0.454***	0.000
<i>constant</i>	0.015***	0.000

Source : The authors' own computation. ***, ** and * indicate the significance at the 1, 5 and 10 percent levels.

Figure-1: Impulse Response Function between GDP and Crude Oil Prices (1976-2019)



Source: The authors based on primary data from the World Development Indicators database and the Statistical Review of World Energy database.

WILLINGNESS TO PAY FOR CUSTOMIZED HEALTH INSURANCE PACKAGE: AN EXPLORATORY STUDY IN A DEVELOPING COUNTRY

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Abstract

The study explores the determinants, that influence the willingness to pay for customized health insurance package, in the context of a developing country. The targeted respondents were drawn from both urban and rural areas of Amritsar, Jalandhar, Kapurthala, Ludhiana, Mohali, and Patiala Districts of Punjab State, India. A pre-tested questionnaire was administered to 1254 low-income households, selected by stratified random sampling technique. The contingent valuation method was applied to elicit willingness to pay (WTP), using the reverse bidding format. Descriptive statistics for demographic details of the respondents and multiple regression method (backward), was used to explore the influence of socio-economic determinants on willingness to pay. Overall, the average willingness to pay for a customized package was Rs 888.56 per year (\$50.11). The regression results revealed that higher the education profile, higher the willingness to pay and more the number of dependents and sick members in the family, higher the willingness to pay.

Keywords: *Health Insurance, Universal Health Insurance Scheme, Willingness to Pay and Contingent Valuation Method*

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1. Introduction

With the higher out-of-pocket expenditure and the desire to provide quality treatment within an affordable health financing, the policymakers in India are keen on offering health insurance for the poor (Dror et al., 2007). Viewing the limitations of the existing health insurance schemes, one of the ways to extend health insurance coverage is through a community-based health insurance scheme (Ahmed et al., 2016). The core objective of introducing publicly funded health insurance schemes, also known as community-based health insurance schemes, is to achieve universal health coverage (Marten et al., 2014). To date, the existing evidence on publicly funded health insurance (PFHI) schemes focused on understanding the determinant of enrollment, utilization, and role of community-based health insurance schemes (CBHI) in improving health care services (Nandi and Schneider, 2020). Nonetheless, the orientation towards intake of health insurance should be developed voluntarily with the clients willing to pay the premium for the coverage (Dror et al., 2007). This could be the feasible option with the localized requirements of people and to avoid any adverse selection (Purohit, 2014). Documented evidence from the studies in under-developed and developing nations, revealed that the dropouts from CBHIs were due to the burden of higher premium payment (Chirwa et al., 2020). Given the growing need to extend access to CBHIs, the present study aimed at establishing the determinants, that could affect the willingness to pay for customized health insurance package, specific to the Indian context.

2. Review of Literature

2.1. Determinants of Willingness to Pay

Willingness to pay refers to “the amount of money that people are or a household is willing

to spend to access or acquire a particular service” (Miti et al., 2020). A systematic review study, conducted to explore the factors that affect the uptake of community-based health insurance schemes in low and middle-income countries, indicated the low levels of income and financial unavailability to be the major barriers (Adebayo et al., 2014).

2.1.1. Age

Age is a significant contributor towards determining the willingness to pay (Adams et al., 2015). The coefficients of age were negatively related and it implied that younger individuals were more willing to pay than the older ones (Nosratnejad et al., 2016). Contrarily, in the Ethiopian context, older age groups and poor households were found willing to pay for CBHI (Garedew et al., 2020).

2.1.2. Income

The income of the household is significantly associated with the willingness to pay (Adams et al., 2015; Haile et al., 2014; Nosratnejad et al., 2014, Nosratnejad et al., 2016). The fall in income levels could lead to financial hardships and further contribute to the misery of household (Ganesh et al., 2007).

2.1.3. Education level

The past studies also found the education level of households to exercise a significant influence on the willingness to pay for insurance (Gustafsson-Wright et al., 2009). In Ethiopia, urban households, with higher education, were 3.38 times more likely to subscribe to CBHI schemes (Deksisa et al., 2020).

2.1.4. Family Size

The willingness to pay increases in direct proportion to the number of family members or family size (Nosratnejad et al., 2014 and Nosratnejad et al., 2016). The family size is

positively associated with the willingness to pay decisions and as the number of household members increases, the probability of willingness to join increased by 69 percent (**Haile et al., 2014**).

2.1.5. Marital Status

Four studies from Asia reported positive association between marital status and willingness to pay (**Dror et al., 2016**). Marital status plays a significant role in the willingness to pay towards health insurance (**Haile et al., 2014**).

2.1.6. Gender

The study conducted in Burkino Faso reported that compared to male respondents, female respondents paid less WTP (928 CFA) as compared to males (3666 CFA (\$4.89)) (3666 CFA (\$4.89)) (**Nosratnejad et al., 2016**). Similarly, the predicted willingness to pay differed among men (16369 Mongolian Tugrik) and women (16661 Mongolian Tugrik) in Mongolia, towards private health insurance (**Batbold & Pu, 2021**).

2.1.7. Health Status

A substantial body of literature explored the relationship between health status and willingness to pay (**Nguyen et al., 2011**). People, with poor health quality, prefer to enroll than those with good health condition, with private health insurance (**Adams et al., 2015**).

2.1.8. Possession of Health Insurance Policy

Adequate knowledge and awareness about the details of the insurance scheme and its working are essential in the successful implementation and sustainability (**Dror et al., 2016**).

2.1.9. Hospitalization

The unprecedented burden of hospitalization on the households, could be avoided or at least could be reduced, if the time and quality of health care are accessible without any hindrance. Consumers place little weight on mortality effects while choosing plans (**Abaluck et al., 2020**).

3. Statement of the Problem

In India, where 80% of health care expenditure is mainly borne by out of pocket system, financial constraints in seeking quality health care treatment, have forced the poor people into catastrophic situation. Previous studies in the literature highlighted the coverage constraints of Government sponsored health schemes in addressing the health care requirements of poor people. Literature also suggested for customized health insurance packages to transform mere passive beneficiaries to active beneficiaries of health insurance schemes. This research study is an attempt to estimate the amount low-income households are willing to pay as a premium for a customized health insurance package. The insurance package was designed to match the requirements of low-income households. Besides, this research study tried to establish the factors that affect the willingness to pay for a customized health insurance package.

4. Need of the Study

There has been growing importance for health insurance schemes, for mitigating the health expenditures among low-income households. There was an intense need to conduct this study to achieve universal health insurance coverage, in line with the achievement of Good Health and Well Being, as an agenda of UNDP's Sustainable Development Goals.

5. Objectives of the Study

The main purpose of the study was to estimate the willingness to pay as a premium, for a customized health insurance package and to examine the factors that determine the willingness to pay for a health insurance package.

6. Hypotheses of the Study

The following null hypotheses were formulated for further analysis.

- H₀₁: Higher the age of members of households, lesser the willingness to pay.
- H₀₂: Lower quintile respondents are less willing to pay.
- H₀₃: Households, with no formal education, are less willing to pay.
- H₀₄: Households with dependents are more willing to pay.
- H₀₅: Unmarried respondents are less willing to pay.
- H₀₆: Male respondents will be more willing to pay.
- H₀₇: Households, whose family's health status is very poor, will be willing to pay.
- H₀₈: Households, who possess health insurance plans, will be willing to pay.
- H₀₉: People, who have a hospitalization history, will be more willing to pay.

7. Research Methodology

7.1. Sample Selection

1254 low-income households, with a per capita income below Rs 5130/- per month and with occupations such as street hawkers, micro businessmen, and workers in factories, were contacted for the study. The study adopted a cross-sectional research design and applied a stratified random sampling technique, to collect the responses from respondents residing in

Amritsar, Patiala, Mohali, Ludhiana, Jalandhar, and Kapurthala Districts of Punjab, India.

7.2. Sources of Data

Primary data were collected, by using a structured questionnaire, to elicit the responses, with a mix of open and close-ended questions. The respondents were also given the orientation towards health insurance policies and their features of selected policies such as Universal Health Insurance Scheme (floated through Public General Insurance Companies), Star Micro Health Insurance scheme, L& T General Insurance Company's Jeevika Medisure Micro Insurance, and customized health insurance package.

7.3. Period of the Study

This research study was conducted over eight months (December, 2017- July, 2018)

7.4. Tools Used in the Study

This research study used the contingent valuation method, as the replies of respondents were based on the contingent scenario offered. The study adopted the reverse bidding game method, also called the descending bidding game method, as adopted by **Binnendijk, et al. (2013)**. Backward linear regression method was used to test the hypotheses.

8. Data Analysis

8.1. Descriptive Analysis of Willingness to Pay and Socio-Demographic and Economic Profile

The socio-demographic, economic and health profile of respondents vis a vis their willingness to pay and willing to enroll, have been presented in **Table-1**. Out of the total sample (1254) selected for the study, 988 respondents (78.80 percent) preferred customized package while 135 respondents (10.80 percent) preferred universal health insurance scheme and 131 respondents (10.40 percent) did not prefer either

of the packages. The average willingness to pay ranged between Rs 867.88 (Jalandhar) and Rs 536.38 (Patiala), provided the premium was paid in installments. Among the quintile groups, the Q1 group of respondents preferred to pay only Rs 534.11 while Q2 and Q4 respondents preferred to pay an approximate amount of Rs 822.60- Rs 826.10. While male-headed households were willing to pay an amount of Rs 768.97, female-headed households were willing to pay Rs665.18. Those respondents, who reported educational background with 11- 12 grade, were interested to pay an amount of Rs 880.56, which was nearly equal to the overall average willingness to pay by all the respondents. When the number of dependents was 7, households were ready to pay the premium amount of Rs 971.43 for insurance coverage while the respondents were willing to pay Rs 783.33 if the households have more than 6 family members sick.

8.2. Determinants of Willingness to pay for Health Insurance

The factors or variables, that affect the willingness to pay for health insurance, are socio-demographic factors, economic factors, and health-related factors. To determine the factors or variables, that affect the willingness to pay, the regression model was used. In the regression model, the natural logged willingness to pay is predicted by using the socio-demographic, health, and economic factors. All the items, in the correlation analysis, reported a correlation coefficient at less than 0.7. Hence the multicollinearity in the data did not exist. Also, the variance inflation factor (VIF) test, obtained a maximum value of 1.824, which indicated no multicollinearity in the regression model.

The model summary, presented in **Table-2**, explains that the model could explain 11.5 percent of the total variance and the model was

fit at $F=9.602$, $p<0.000$ (**Table-3**). The regression results, with the parameter estimates, are presented in **Table-4**. The results revealed that respondents, in the higher age of households and quintiles reported higher willingness to pay, even at a higher price. Hence H_{01} - Higher the members of households, lesser the willingness to pay and H_{02} -Lower quintile respondents are less willing to pay, were rejected. Although female households recorded negative coefficients, some female households were paying a higher premium compared to male households, and hence H_{06} -Male respondents will be more willing to pay, was rejected. Respondents, with higher education, tended to purchase insurance with more premium, as evident from the regression results of this study. Therefore, the H_{03} -households with no formal education, are less willing to pay, was also rejected. The number of dependents, as well as several sick members in the family, exercised significant influence on the willingness to pay and hence the statement, H_{04} -Households with dependents are more willing to pay, was accepted. Previous studies established that unmarried people would be willing to pay lesser premium and the results of the present study concur with it. Hence H_{05} was accepted. Also, the respondents, whose health expenditures was catastrophic and with poor health status, were expected to pay higher premium, over the respondents, with non-catastrophic expenditures. Hence H_{07} -Households, whose family's health status is very poor, will be willing to pay, more and H_{09} -People, who have a hospitalization history, will be more willing to pay were accepted. The negative coefficient reveals the significant negative relationship between the possession of health insurance and willingness to pay for the customized package. This means that the hypothesis statement H_{08} -Households who possess health insurance plans will be willing to pay more, was rejected.

9. Findings of the Study

The study aimed to explore the determinants of willingness to pay, for customized health insurance package, in the context of a developing country. The study adopted a contingent valuation approach, to determine the degree of willingness to pay. The findings are presented below.

- The study found the unadjusted mean amount, allotted for the customized package to be Rs.888.56 (\$50.011). The Universal Health Insurance Scheme charges of Rs 450 per year (\$25.327), for an average family size of 5 members, was still less than the WTP for a customized package.
- The male-headed household tended to pay more for insurance coverage than female-headed household. Because of male dominance in decision making in financial decisions, female members reported lower commitment towards enrollment as well as the payment towards health plans.
- Highly educated respondents were more willing to enroll and pay higher premium. Higher capabilities in understanding the modus operandi of health insurance schemes also contributed to the higher willingness to purchase.
- The income level of respondents was expected to have positive coefficient, conversely but the negative results implied that higher-income people were not willing to pay but they were willing to enroll in a health insurance scheme. Higher the number of dependents, the higher the food and non-food expenditures as well as health expenditures. Higher the number of sick members in the family, higher the medical expenditure spending, that triggered the vicious circle of poverty.

10. Suggestions

Findings from this study could be useful, for strategic planning by Central and State Governments, to implement community-based health insurance schemes. The findings of this study revealed that majority of people were not aware of the community-based insurance schemes and they would be more willing to enroll if awareness about the advantages of health insurance schemes was provided. The major reason for lower penetration of community-based health insurance schemes is the lack of appropriate distribution channels. The demonetization event had forced people to depend on digital financial service providers as well as banking channels for payment. Once enrolled, the mechanism shall facilitate the deduction of premium from the bank accounts of the beneficiaries to reduce the dropouts. Also, towards sustainable development, NABARD-Bank-SHG programs could be widely encouraged.

11. Conclusion

This research was conducted to estimate the willingness to pay as a premium, for a customized health insurance package and examine the determinants of willingness to pay for a health insurance package. The low-income households of Punjab State, were willing to pay Rs 888.56 per year (\$50.11), for a customized health insurance package. This research has provided empirical evidence that households with higher education profile, with dependents and sick members in the family, were more willing to pay for the health insurance package.

12. Limitations of the Study

The customized health insurance package was designed to support the health care financing needs of low-income households of the sample State of Punjab. The findings cannot be applied

to other contexts such as mid-size income households, women, and households, with non-communicable and communicable diseases.

13. Scope for Further Research

This research study followed a cross-sectional research design. Future studies can be longitudinal in estimating the influence of changing socio-economic and demographic profiles of respondents. Future studies could examine the WTP towards a health insurance package, among migrant labor, women, and households, with non-communicable and communicable diseases.

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Table-1: Results of Descriptive Statistics associated with Willingness to Pay and Socio-demographic and Economic Profile

Particulars	Variables	Not Willing to Enroll	Willing to enroll	Total	Particulars	Variables	Not Willing to Enroll	Willing to enroll	Total	
District	Amritsar	0	197	197	Package Opted	No package	131	0	131	
	Jalandhar	0	193	193		Customized Package	0	988	988	
	Kapurthala	0	200	200		UHIS	0	135	135	
	Ludhiana	0	200	200		Quintile Groups	Destitute (Q1)	85	173	258
	Mohali	49	169	218			Extremely Poor (Q2)	10	241	251
Patiala	82	164	246	Non-poor (Q3)	6		73	79		
Gender	Female	43	204	247	Vulnerable Poor (Q4)	8	346	354		
	Male	88	919	1007	Wealth Quintile (Q5)	22	290	312		
Age	Less than 25	12	65	77	Education	No Formal Education	97	447	544	
	26-35	19	297	316		1- 5 Grade	12	184	196	
	36-45	45	342	387		6- 8 Grade	10	191	201	
	46-55	25	191	216		9- 10 Grade	7	193	200	
	More than 55	30	228	258		11- 12 Grade	3	87	90	
	Unmarried	30	226	256		Graduation and above	2	21	23	
Marital Status	Married	101	897	998	0	0	3	3		
	Joint Family	52	162	214	Number of Dependents (Family Size)	1	73	164	237	
Domicile	Rural	52	623	675		2	19	193	212	
	Urban	79	500	579		3	6	323	329	
Health Expenditure	Non-Catastrophic	88	432	520		4	14	257	271	
	Catastrophic	43	691	734		5	18	155	173	
In-patient hospitalization in the last 1 month	No	108	961	1069		6	1	17	18	
	Yes	23	162	185		7	0	7	7	
Possession of Health Insurance Policy	No	86	921	1007	8	0	4	4		
	Yes	45	202	247	0	33	111	144		
Overall Health Status	Very Poor	0	38	38	Number of Sick Members in the family	1	65	752	817	
	Poor	60	349	409		2	19	207	226	
	Average	18	288	306		3	4	28	32	
	Good	46	386	432		4	4	15	19	
	Excellent	7	62	69		5	4	6	10	
					More than 6	2	4	6		

Source: Author's Calculation from the primary data collected

Table-2: Results of Model Summary for Analyzing the Determinants of willing to pay for Health Insurance Package

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.339	0.115	0.103	0.28657

Source: Author's Calculation from the primary data collected

Table - 3: Results of ANOVA Test for Analyzing the Determinants of willing to pay for Health Insurance Package

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.828	15	0.789	9.602	.000
Residual	90.912	1107	0.082		
Total	102.741	1122			

Source: Author's Calculation from the primary data collected

Table- 4: Results of Regression Coefficients Explaining the Determinants of Willingness to Pay for Health Insurance Package

Parameters	Unstandardized Coefficients B	Standard Error	Standardized Beta	t	Sig	Collinearity Statistics	
						Tolerance	VIF
(Constant)	6.645	0.045		147.81	0		
Quintile Q2	0.09	0.027	0.122	3.327	0.001	0.597	1.675
Quintile Q4	0.063	0.025	0.095	2.5	0.013	0.548	1.824
Quintile Q5	0.05	0.026	0.072	1.926	0.054	0.572	1.747
Female	-0.061	0.029	-0.077	-2.107	0.035	0.595	1.68
11- 12 Grade	0.101	0.033	0.089	3.093	0.002	0.967	1.034
Graduation and Above	0.197	0.064	0.088	3.07	0.002	0.97	1.031
Married	-0.057	0.028	-0.076	-2.057	0.04	0.592	1.688
Non-catastrophic Expenditure	-0.064	0.018	-0.102	-3.54	0	0.955	1.047
Possession of health insurance	-0.091	0.022	-0.115	-4.035	0	0.981	1.02
No of dependents (Family size)	0.025	0.006	0.113	3.895	0	0.953	1.049
No of sick members	0.024	0.011	0.064	2.204	0.028	0.953	1.05

Source: Author's Calculation from the primary data collected

Note: Significant Regression coefficients are presented in the table

**EXPLORING MALAYSIAN ACADEMICS' PERCEPTION ON
WORKING FROM HOME (WFH) AS A FLEXIBLE WORKING
ARRANGEMENT DURING COVID-19 PANDEMIC**

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Abstract

Flexible working arrangements have gained prominence in the last decade, due to its ability to provide employees' work-life balance and less stress, which are important for productivity. Although this work-place concept has been used in other industries, many Malaysian universities continue with the conventional work-place policies, with close monitoring. With the COVID-19 pandemic, Working from Home (WFH), a common form of flexible working arrangement, has become a new normal globally, transforming the entire workplace model, irrespective of business or industry. The objective of this study was to explore the perception of Malaysian academics on working from home, with regards to

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work-life balance and stress. Using a qualitative approach of focus group discussion, eight academics, from both public and private universities, were interviewed online. Findings revealed that WFH helps to improve work-life balance due to reduced stress for academics in Malaysia. This outcome will be useful in policymaking, where organizations are planning to change work policies to enhance employee productivity, especially with the COVID-19 pandemic experience. As knowledge workers' mind never switches off, a structured WFH policy can contribute to academics' well-being, which is also in line with the United Nations Sustainable Development Goals 3 (SDG 3).

Keywords – COVID-19, Work From Home (WFH), Flexible Working Arrangements (FWA), Academics, Work-Life Balance, Stress and SDG

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1. Introduction

Flexible working arrangement (FWA), a type of work arrangement which revolves around flexibility of working time of employees, is a common practice in developed economies, with the objective of achieving work-life balance and productivity. (Berg, et al, 2014). In recent trends, more organisations have started offering FWAs, to help employees reduce stress. The Global Organization for Stress reported in 2020 that 60% of individuals, all over the world, experienced work-related stress. While researchers evidence that alternative working arrangements can reduce work-related stress, many organisations in developing countries still prefer the conventional style of working specific hours, due to the belief that attendance monitoring is positively related to productivity. In Malaysia, workplace flexibility is one of the contributing factors towards intention to become an academic (Dasan, 2019), where job autonomy is positively linked with work family-enhancement and explains why flexibility in work arrangement is seen as a favourable aspect in academia. One common type of FWA, implemented globally, is Work From Home (WFH). Malaysia was among the countries, that

was hit with COVID-19 pandemic and responded by announcing the Movement Control Order (MCO) in mid-March 2020. All academicians in the 20 public universities, and more than 85 private universities, were able to adapt themselves immediately to work from home with ease.

2. Review of Literature

Flexible working arrangements (FWA) is defined by the Georgetown University Law Centre, Workplace Flexibility (2010), as any “one of a spectrum of work structures, that alters the time and/or place that work gets done on a regular basis”. In the 1990’s, various types of FWA like working part-time, compressed work weeks and time flexibility were introduced by employers to be cost-effective (Dalton and Mesch, 1990; Purcell et al., 1999), with other benefits such as talent retention as well as higher financial performance (Stroup and Yoon, 2016). Generally, institutions of higher learning face a dilemma when it comes to allowing staff work flexibility (Paull, et al., 2009), due to work commitment of the academics. Yet the development of technology and pedagogical ideas have made educators’ job quite attractive in some countries (Bajzikova

et. al., 2013). In United Kingdom, a typical 9-5 working hour arrangement is no longer considered conducive to support academics in performing their task (**Sang et. al., 2015**). In France too, academics reported that high autonomy in teaching and research activities has boosted their motivation (**Inigo and Raufaste, 2019**). In Malaysia, **Subramaniam et. al., (2018)** found that a rigid working environment could be a cause for labour exit and unhappiness at the workplace and this, in turn, affects the productivity and well-being of the workers. Being knowledge workers, academic work with non-tangible elements requires them to consistently think, to avoid losing valuable ideas (**Sang et al., 2015**). Academics' work is that of multi-tasking since it not only involves educating students but also extends to administrative roles research related activities as well as external engagement (**Husin et. al., 2018**), leading to a more challenging and intensified job scope (**Curie and Eveline, 2011**). The various roles, played by an individual in academia, makes it difficult for him/her to switch-off, thereby affecting their well-being (**Lewis, 2016**). This leads to two crucial issues, which arise from FWA and WFH; namely, work-life balance and stress.

2.1 Work-Life Balance

The concept of work-life balance has gained much attention from many organisations and employees, due to the shifting of family patterns and the increase of dual-income earners (**Shagvaliyeva and Yazdanifard, 2014**). Work-life balance can be obtained, with a balance between the demands of employees' work lives and personal lives (**Jackson and Fransman, 2018**). **Mohan, et al.** (2010), claim that work-life affecting an individual, particularly females, irrespective of their academic positions (**Helavci, 2019**), is often related to child-care.

Work-life balance may be challenging for academics to maintain because academic work can be perceived as 'open-ended', as it requires research and teaching preparation also. In a few countries, university policies do not allow employees to achieve the balance and employees feel the pressure due to a tilted work-related role. Academics eventually are under pressure, to demonstrate productivity through quantifiable data, such as the number of publications and even find themselves working from home during non-labour hours, thus affecting the work life balance. Despite the challenges faced by academics in Malaysia, it was evidenced a decade ago that academics demonstrated less propensity to leave the organization due to job satisfaction and organizational commitment (**Noor, 2011**). However, a different trend is witnessed in recent times, to which academics' work has become so extremely demanding and challenging that employees are forced to work during weekends as well as extended hours. This alarming trend intrudes into their family time and hence creates negative impact on job satisfaction and organizational commitment (**Khairunneezam, et al, 2017**).

2.2 Stress

The American Institute of Stress has evidenced that 20% of Americans face stress as a result of juggling work and personal life (2021). In Malaysia, it was noted that Malaysian employees are more over-worked, stressed and lead unhealthy lifestyle and they are least productive in comparison to some of their immediate neighbours like Singapore or Hong Kong (**The New Straits Time, 2019**). This is also true in the case of academics. Stress among academicians is an indication that the academic environment does not provide an enjoyable working environment that academicians used to experience (**Makhbul et. al., 2013**). This has

resulted in health issues and over-all wellbeing, thereby influencing the teacher's contribution towards the student learning experience (Bel, et al., 2012) and in worst cases, can disturb the students' intellectual and social abilities (Ahsan et. Al., 2009). The work of academics is often highly salient to their personal identity, which leads to increased responsiveness to the demands of their work setting. This is because professional success and rewards are essential to them. This is worsened with the non-work demand that might intensify the situation, especially in the form of work-life conflict. In Malaysia, employees attached to research universities have suffered increased stress level because of various demands on publication quality, teaching quality as well as creating visibility of the lecturers to the outside world (Makhbul and Khairuddin, 2013). Noramalina, et al., (2016) evidence that almost 61% of academics faced either moderate or severe stress, resulting from prolonged working hours, increased workload and responsibilities.

The question of whether WFH or FWA has helped in reducing stress, has received mixed views. On one hand, it is reported that employees, who were tied to formal flexi-work arrangements, had reported improved health and lower stress (Grzywacz, et al., 2008) while there are claims that flexibility in terms of work from home, had increased work pressure and work-life conflict, leading to increase in the employees' stress levels (Russell, O'Connell & McGinnity, 2009). However, it will be critical to research on the extent to which academics perceive WFH may affect their work-life balance and stress in Malaysia as a move forward in workplace flexibility.

3. Statement of Problem

The Malaysian higher learning institutions (HLIs) have grown over the past few decades,

making significant strides and risen in global recognition on key dimensions. Additionally, these universities are competing, within different rankings, ranging from QS world ranking to the regional rating agencies like Malaysia Research Assessment (MyRA), that focuses on research contributions. With such an accelerated growth within the academic profession as well as sudden transition to new normal, it is very timely to investigate the potential acceptance of WFH as a form of FWAs amongst the academic fraternity in Malaysia and hence the motivation for this study.

4. Need of the Study

The COVID-19 pandemic has shifted the world to a new WFH norm, forcing even the most conventional people to embrace technology fully and accept alternative working arrangements. The fast-growing technology and changing lifestyle, that valued more self-indulgence (Himawan et al., 2020), indicated that the change in work arrangements in Malaysia might be more about "when" than "if". With such an accelerated growth within the academic profession as well as a sudden transition to new normal, it is very timely to explore the potential acceptance of WFH amongst the academic fraternity in Malaysia. Can WFH contribute to work-life balance and reduce stress which are pertinent for the well-being and happiness?

5. Objectives of the Study

The main aim of this study was to gain a better insight into the academicians' view of WFH as a form of FWA, focusing on its impact on work-life balance and stress. This study focusses on WFH, which was implemented by all Malaysian universities, during the COVID-19 pandemic. The qualitative study covers eight academics' views, from both the public and private universities in Malaysia, in September 2020.

6. Hypotheses of the Study

As this is a qualitative study, there is no hypothesis testing. The two research questions are:

H-1: Does WFH among academics have an effect on WLB?

H-2: Does WFH among academics have an effect on stress level?

7. Research Methodology

7.1 Sample Selection

To answer the two research questions, the key emergent issues relating to WFH and its outcome on WLB and stress level, have been explored in this paper. The focus group discussion, with eight participants, were carefully selected, using purposive sampling to ensure representativeness across age, gender, faculty, work flexibility and type of university (Table-1).

7.2. Sources of Data

Primary data were based on the eight participants' responses, during focus group discussion. Further interviews were also conducted to clarify some responses.

7.3 Period of study

A three-hour focus group discussion was done in September 2020, during the COVID-19 pandemic, to explore the working arrangement of WFH among academics, in both public and private universities in Malaysia.

7.4 Tools used in the Study

This is a qualitative study where data were captured via focus group discussion and follow-up interviews. All data were keyed into NVIVO 12 software. As it was conducted during COVID-19 pandemic and all universities were working online, the focus group discussion was done via online platform, using Google Meets.

8. Data Analysis

The focus group discussion probed themes in terms of WFH, focusing specifically on work-life balance and stress based on the daily experience of the academic staff. However, during the discussion, other themes such as well-being, happiness and productivity also emerged, but they are not discussed in this paper. The transcribed data were analysed by using thematic analysis, an approach for identifying, analysing and reporting patterns or themes. All participants were assured of their anonymity and it was reiterated that the objective of the study was to understand their experiences while WFH during the pandemic. The purpose of this paper was not to draw generalizations but rather to understand the experiences of academics, working in different working environments, using the data collected.

8.1 Demographic Profile of Participants

Four of the participants were in their 30's, two in their 40's and 50's respectively and one in 60's. Three of the participants were Indians and the rest were Malays. Four participants were from private universities while the others were from public universities. There were three males and five females, with two participants who had extra caring duties at home (Table-1).

9. Findings of the Study

This research explored how WFH impacted academics' work-life balance and stress.

9.1 WFH and Work-Life Balance

This section looks at how academics' perceived work from home (WFH) had influenced their work-life balance (WLB) amidst COVID-19. Hayman's (2009) concept on work-life balance uses three dimensions, namely, *work-interference with personal life*; *personal life interference with work and work/personal life enhancement*. Using the

three themes, the interview excerpts were coded and presented as below:

Work-interference with personal life

Majority of participants emphasized how WFH provided them a greater control over their work schedule, which allowed them to look into the needs of their personal life such as tending to the children or doing house-hold chores while maintaining work productivity at the same time.

“Being a mom of four, with COVID- 19 in the country... ..and kids at home currently... I must say that we are flexible to do our work.... not in accordance with our [work] routine or schedule..... I can schedule a meeting or my video presentation later or I can do it late at night...”

Academics, like general employees, also aspire to achieve a balance between work-life and personal life.

Personal life interference with work

Among the responses, commonly provided by the academics, was how WFH helped them through the emotional and psychological burden in trying to juggle personal life and work-life.

For instance, an academic, who had to commute long distance to work, highlighted how he could *“choose to WFH when permitted to effectively execute some of his domestic responsibility resulting in.....reduced emotional and psychological stress”*.

“I always need to travel long distances..... it becomes a great challengewhen I have to leave the kids behind with the babysitter, I don't have anybody to look after them...in fact when I had someone who is sick in the family...that used to be rather very stressful for me”.

“So to me, I believe it's more on emotional and psychological support that I have from the university because my university is very flexi and they allow us to WFH.....”

Commented, another academic, whose university practices WFH...

“The positive effect of WFH is a lot.. So with this system, it really makes our lives easier because we only have to travel when we need to...for class, meeting etc..”

With WFH policy, academics can handle better both the emotional and the psychological burden, especially among dual career families.

Work/personal life enhancement.

WFH or FWAs also appears appealing to certain academics, who desire work flexibility due to household responsibilities. One of the academics, exclaimed how when he was first chosen for an academic post, he preferred to join a university, that was willing to offer FWAs so that he could cope with his child. Having FWAs, as part of the work policy, enhances the work/personal life as it significantly improves the quality of both.

He claimed that during the pandemic,

“with a special child....a son with autism....I need to have some flexibility...and alsoWFH was ...so convenient. Because my wife, is a lecturer too, ...so it allows us to take turns...to take care of the child..We plan in such a way that I do most of my work late at night after my kid has gone to sleep.”

“WFH or FWA allows me to come to the office a little bit late...this [FWA] allows me to keep on working and remain productive as well.. I make sure my publication output is high, my research is good and I am able to meet all the KPIs”

Academics, with caring duties, especially with children below six years old, have described how WFH or FWAs had helped them manage caring duties and work requirements more effectively, as shown by **Helvaci (2017)**, who found that work-life balance does have a significant effect on an individual, irrespective of their academic positions.

9.2 FWAs and Stress

Although WFH could provide academics a sense of fulfilment in terms of work-life balance, well-being, happiness and productivity, this may have mixed impact on the academics, in terms of stress, as discussed in this section.

Physical Stress

Physical stress is a negative physical symptom, that can result from long working hours, due to the unintended merging of home and work. This is especially true in the scenario where both caring duties and working duties demand to be taken care at the same time.

“ I am working more hours now...I feel.....we are much more tired.. even [at] night we are working...so from my [point of] view I feel it a little bit tiring because it [work] is like never ending..”

Said another participant,

“I found that it's kind of fatigue as well because Iam not able to focus on my work activities ...unlike if we are in the office physically...to prepare the presentation, lectures etc. I might say that I will take longer time as compared to physical class or working at the office”.

In this regard, **Darabi et. al., (2017)** found that if demands were being made to overpower their capability to cope with them, it becomes stressful. The stress here occurs when the academic has no autonomy over when, where,

and how he/she does the work. This stirs the stress and leads to serious mental and physical problems, that negatively influence the academic's well-being.

Mental Stress

Mental Stress or Psychological Strain can result from increased distraction, which leads to reduced focus on performing work-related tasks. As mentioned by a participant earlier, this sometimes takes place in a flexi-place setting, where the work environment might not be conducive, as obtained in the office or the university. Several academics have encountered this issue, during WFH, during the pandemic.

“Sometimes it becomes stressful for me We don't feel very focus in terms of what we are currently doing[office activities], it will have negative impact, it will lead you to.. stressful [situation]”.

However, as **Vega et. al., (2015)** argues that, WFH generally is associated with greater positive effect even though there exists a lower negative effect.

As academicians are consistently required to do many other tasks such as meetings, consultations and supervision, WFH will facilitate their ability to do their tasks, anywhere and everywhere.

For example, claimed an academic,

“Our procedure is that we have to clock-in and clock out.

Basically, this limits employeesatisfaction because we are required to come to the office”...immaterial of whether we have class or not...

When prompted, another academic illustrated howWFH affects the academics positively due to better time management.

“WFH makes the [academics] happier, less stressed compared to when they have to have to run to the machine ...to thumbprint. on time”

This sentiment was also reflected by another young academic, who was experiencing WFH for the first time..

“I am happy because I don’t need to follow the regulation of the management which requires me to ‘thumb in’ and ‘thumb out’ so we can work at anyplace and anytime...”

Thus, having control over the working environment and positive perception of the organization, lead to the academics feeling happy.

However, WFH becomes a double-edged sword as it blurs the line between work and leisure (Atkinson and Hall, 2011), where academics end up needing to respond to their employers, associates or students 24/7. The blur line between work and leisure emerges more during WFH for academics. In the context of intense academia, work-pace and deadlines encompass academic personal space and time. The major concern of the blurring of work and home boundary, frequently derived from WFH (Chandola et al., 2019), found two dimensions of stress, as also voiced by the participants, revolving around physical stress and mental stress. However, whether WFH and FWAs are linked to stress, are specific to the type of flexibility.

10. Suggestions

As the MCO still continues, in different intensities, in the country, the COVID-19 pandemic has taught the academic world that online, digitalization, Industrial Revolution (IR) 4.0 and social media are more than just buzz words. They are critical strategies, that one needs to have for employment sustainability, especially among knowledge workers. WFH is

seen to be the future of academics in Malaysia and the readiness among all institutions of higher learning to adapt to this new world of work, shows evidence. A more concerted effort is needed to make it a level playing field for the stakeholders. Thus, process and procedures, including standard operating procedures, will have to be amended to embrace the new working lifestyle that came ‘unannounced’. The major contributions of this paper are as follows: Firstly, it triggers the idea of WFH as an alternative working arrangement, which is not a norm for many academics in Malaysia. Secondly, the growing health concerns, resulting from work-related stress levels, can be addressed to a large extent. Thirdly, Malaysia’s vision 2030 documents still identify many sectors as ‘low’ in adoption of high technology, but WFH will eventually lead to usage of more technology. Finally, WFH can remove some barriers for the women in the workforce, allowing for better well-being and contribute towards the United Nations Sustainable Development Goals 3 (SDG 3).

11. Conclusion

In essence, the main objective of this study was to capture the Malaysian academics’ perception about WFH during the COVID-19 pandemic. The exploratory nature of the study wanted to understand how academics in Malaysia perceived WFH, as a form of FWA, in terms of work-life balance and stress. Interesting conclusions from the focus group discussions emerged in this study. Firstly, in answering **RQ 1**, academicians in Malaysia were found to value WFH as a contributor to work-life balance. Secondly, in answering **RQ 2**, WFH generated mixed responses, in terms of stress as a result of the blurring of boundary, evident especially among academics, who were not able to practice effective time management. Finally, a cost-benefit analysis, among the eight academics revealed that the benefits outweighed the cost and WFH should be implemented, in a

more structured way, with blended learning and revised KPIs.

12. Limitation of the Study

This study was limited to the perception of academics on WFH, as a mode of flexible working arrangement, in terms of work-life balance and stress levels. Besides, it was carried out during COVID 19 pandemic, which caused stress, due to challenges that the family faced upon being confined to the house.

13. Scope for Further Research

Further research should explore a larger sample of academics and how WFH may have an effect on well-being, happiness and productivity.

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Table-1: Demographic Profile of Focus Group Participants

Age	Gender	Department	Degree of Flexibility	Type	Code
40's	Male	Business	3-Most Flexible	Private University	P1
40's	Female	Accounting	3-Most Flexible	Private University	P2
50's	Female	Economics	3-Most Flexible	Private University	P3
30's	Female	Engineering	1-Least Flexible	Private University	P4
50's	Female	Computer Science and Mathematic	3-Most Flexible	Public University	P5
30's	Female	Survey and Planning	3-Most flexible	Public University	P6
30's	Male	Hotel	2-Semi flexible	Public University	P7
30's	Male	Business	1-Least flexible	Public University	P8

Source : Primary Data computed using NVIVO 12 software

**UOH BUSINESS ADMINISTRATION COLLEGE STUDENTS'
PERCEPTION OF THEIR LEARNING EXPERIENCES, FOR
COMPETENCY BUILDING, THROUGH STUDENT-CENTERED,
LEARNING APPROACH**

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Abstract

The study was conducted on undergraduate business students, at the College of Business Administration (CBA), at the University of Hail, Kingdom of Saudi Arabia. The Researchers attempted to determine, the perception of business stream students of their learning experiences, in building their competency and skills, by applying student centred learning approach. The factors considered, in the study, were Students' Learning Activities (SLA), Students' Learning Resources and Facilities (SLRF); UOH Proposed Teaching Practices (UPTP), Strategies for Students' Motivation for Learning (SSML) and Students' Learning Perception on Competency Building (SLPCB). The study identified the different aspects of students' perception of their learning experiences, by applying structural equation modelling (SEM). It also recommends particular areas of improvements and actions to their overall development.

Keywords: *Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM).*

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1. Introduction

Measuring teaching effectiveness, through students, become a useful tool to measure quality in higher educational institutions (Al Kuwaiti and Subbarayalu, 2015; Alderman et al., 2012; Zerihun et al., 2012). Barrie et al. (2015) identified three factors, namely, motivation, resources and assessment, to improve students' learning. The learning environment positively impacts students' learning and measures the quality of learning (Jump and Jump, 2006; Zerihun et al., 2012). Nair et al., 2011 examined best practice areas and identified them for improvement of students. Educational institutions play a vital role in student engagement with the coursework and instructors, on the other hand, measure students' engagement strategies to develop them (Meng and Jin, 2017). The culture of students' feedback on the teaching quality has been in practice for long (Delaney et al., 2010). Biggs (1999) proposed a model, to deal with students' rating of their learning experiences about teaching, individual students' differences, and students' involvement in learning activities. Instructors can help students access various open resources and engage them to collaborate with a creative environment (Kohout-Tailor and Sheaffer, 2020). Students' perception of power and autonomy (teacher-learner) directly affects their involvement, motivation, and learning (O'Brien et al., 2020). Also, motivation is a more profound method of teaching and independent learning and it enhances learning quality (Gulikers T.M. et al., 2006). Community-building strategies, design of the course, technology and time are important factors contributing to student learning (Song et al., 2004). Technology plays a significant role in students' learning and interaction with their teachers, leading to quality learning (Zerihun et al. 2012).

2. Review of Literature

Students' perception, concerning the teaching and learning process, is the most crucial element to measure teaching effectiveness for any institution (Al Kuwaiti & Subbarayalu, 2015; Hamshire et al., 2017). Assessment For Learning (AFL) helps measure students' perception of their learning experiences (Gibbs et al., 2003; Pat-El et al., 2013). Devlin (2002) examined students' perception of their learning, by using "Perceptions of Learning Environment Questionnaire (PLEQ)". Jump & Jump (2006) evaluated students' perception about their learning environment, through using a questionnaire, "Perceptions of Learning Environment Questionnaire (PLEQ II)". Delaney et al. (2010), in an online and campus-based survey on students' perception of teaching, identified 9-effective teaching characteristics. Visser-Wijnveen, van der Rijst, and van Driel (2016) developed "Student Perception of Research Integration Questionnaire (SPRIQ)", to determine the factors that students perceived, in research specific courses and considered the feedback of students' perceptions as a promising tool for teaching and learning. Zerihun et al. (2012) performed Exploratory Factor Analysis (EFA) on students' reflections of their learning experiences, by considering 24-items on the "Student Evaluation of Learning & Teaching Questionnaire (SELTQ)". Students perceive the instructors' teaching as influential when expressing themselves, both explicitly and implicitly, in the classroom (O'Brien et al., 2020). Nair et al. (2011) delineated the strategies for students' engagement to enhance student engagement and further tried to improve them to increase students' satisfaction. Bernaus Merce and Gardner (2001) investigated 26 teaching strategies and found that majority of them were satisfied with course

design, motivation, compatibility with technologies and time management.

3. Statement of the Problem

The study had adopted two perspectives about learning, known as Behaviorism and Constructivism. Behaviorism is the most useful concept, for identifying the relationship between actions by students in the classroom. It follows the cognitive theory principles, based on students' reflection on teaching and thinking about improving teaching itself. The model of behavior learning primarily relies on respondent conditioning (classical) and operant conditioning. Teachers influence the students' behavior and thinking and seek fruitful changes in students' learning and positively or negatively affect their motivation (intrinsic or extrinsic). The operant conditioning (**Skinner, 1988**) results in new behaviors because of further consequences. The theory is applied to know the effect of influences on specific behaviors. The operant conditioning also describes the learning behavior of students in the classrooms. It is about engaging students in certain activities (like classwork, assignments, discussions etc.), making teaching attractive and reinforcing (**Rockmore, 2005**).

4. Need of the Study

The study was based on students' perception of learning experiences, to improve teaching and learning in higher education. Students factors were identified as flexibility in learning and convenience (**Carter, 2013**).

5. Objectives of the Study

1. To analyse the present scenario of students' learning activities at CBA, to maintain course learning outcomes, contributing to their academic and professional development.
2. To study the availability of Students' Learning Resources and Facilities at CBA,

contributing to the students' competencies building.

3. To examine how CBA's proposed teaching practices, support students' learning and competency building by aligning with international academic practices.
4. To study how students' motivational strategies for learning is supporting their competency building.
5. To analyse the overall impact of students' learning activities, students learning resources & facilities, proposed teaching practices, and strategies for students' motivation on overall students' learning and competency building.

6. Hypotheses of the Study

- H01: Students' learning activities have not significantly supported course learning outcomes and students' academic and professional development.
- H02: Available students' learning resources and facilities at CBA did not significantly help to build student competencies.
- H03: Proposed teaching practices have not significantly supported students' learning and competency development, aligning with international academic practices.
- H04: Strategies for students' motivation for learning has not significantly supported students' competency building and learning.
- H05: All the four factors like students' learning activities, students learning resources & facilities, proposed teaching practices, and strategies for the students' motivation, have not significantly supported overall students' learning and competency building.

7. Research Methodology

7.1 Sample Selection

The study considered 224 valid responses of male and female undergraduate business

stream students of the University of Hail, Saudi Arabia. Sample was selected from the Management, Management Information System (MIS), Accounting and Economic & Finance Department of the college.

7.2 Source of Data

The primary source of data was the responses of business stream students at the University of Hail, Kingdom of Saudi Arabia. The other sources were the past studies conducted on students' perception of learning experiences in higher education.

7.3 Period of Study

The data were collected from undergraduate students, over a period of four and a half months, starting from January 15 to May 15, 2020, during the spring semester.

7.4 Tools used in the study

The study developed a questionnaire, on the five-point Likert scale, with 27 items, to measure students' perception of their learning experiences (Barrie et al., 2015). The pilot survey was conducted on thirty students and five instructors of different streams, to verify twenty-seven items in the questionnaire. The research used SEM, followed by CFA and EFA. The measurement model (Figure-1) comprised five constructs, with 24 variables, as three-variables dropped from the study after performing EFA.

8. Data Analysis

The study initially performed Exploratory Factor Analysis (EFA), on 27 items of 324 responses, using varimax rotation, which yielded five factors. The solution explained 69.87 percent of variance of the total variance in the correlation matrix. KMO measure of sample adequacy was 0.93, which was acceptable. The study removed three variables: SLA1, SLRF4 and UPTP1, due to lower commonalities score.

The study performed CFA and SEM, by using SPSS AMOS software. The analysis measured the model fit, with Chi-square goodness-of-fit and approximate fit indices (Arbuckle, 2010; Piaw, 2013).

8.1 Confirmatory Factory Analysis (CFA)

The first order measurement model (Figure-2) demonstrated the significant model fit of Chi-square (at 0.01 significant level) to the degree of freedom (CMIN/DF) at 2.40, which was excellent and less than 3.00. The CMIN value, at less than two, was preferred, and between 2 to 5 would be acceptable. The approximate fit indices, Goodness of fit index (GFI = 0.869), Adjusted Goodness of fit index (AGFI = 0.837), Comparative fit index (CFI = 0.931), Normed fit index (NFI = 0.888), Relative fit index (RFI = 0.872), Incremental fit index (IFI = 0.931) and Tucker-Lewis fit index (TLI = 0.921), recorded values greater than 0.9, as displayed in the Table, to justify the model fit. The Root Mean Square Error of Approximation (RMSEA) value, at 0.066, was less than 0.08 and hence acceptable. The Standardized Root Mean Squared Residual S(RMR) value, at 0.070, was acceptable (should be < 0.08) and also confirmed the model fit. The RMR value, at less than 0.08, was acceptable (Brown, 2015; Kline, 2015; Piaw, 2013).

8.1.1 Convergent & Discriminant Validity

All the loading was significant for convergent validity. Table-1 shows that the composite reliability (CR) estimates of the constructs recorded values above 0.8 and it indicated good reliability in the construct. The average variance extracted (AVE) also recorded values greater than 0.50. The CFA model of students' perception of the learning indicated adequate convergence or internal consistency. Values of all constructs' Average Variance Extracted (AVE) were more than

Mean Squared Variance (MSV), the corresponding inter-construct squared correlations. Therefore, the five constructs of students' perception of learning under the CFA model, demonstrated discriminant validity.

8.2 Structural Equation Modelling (SEM): Model Estimation

The SEM model estimation (**Figure-3**) indicated approximate fit indices. The CMIN/DF value was 2.494, which was quite good, at less than 3.00. Goodness of fit index (GFI = 0.860), Adjusted Goodness of fit index (AGFI = 0.830), Comparative fit index (CFI = 0.925), Normed fit index (NFI = 0.881), Relative fit index (RFI = 0.867), Incremental fit index (IFI = 0.925) and Tucker-Lewis fit index (TLI = 0.916) recorded values above 0.9, as shown in the Table, justified the model fit. The Root Mean Square Error of Approximation (RMSEA) value at 0.068, was less than 0.08 and hence acceptable and The Standardized Root Mean Squared Residual (RMR) value was 0.080, which was fair (should be < 0.08) and also confirmed the model fit. The S(RMR) value at less than 0.080, was acceptable (**Brown, 2015; Kline, 2015; Piaw, 2013**).

9. Findings of the Study

The findings of Structure Equation Modelling (SEM) validated the model fit with several indicators. The result outcomes revealed that all the factors like students' learning activities, students learning resources and facilities, proposed teaching practices and strategies for the students' motivation, had supported overall students' learning and competency building (**Table 2**). The three variables, SLA1, SLRF4 and UPTP1, reported no contribution to the study (**Figure-2**).

10. Suggestions

To work on the feedback on learning perception and understanding teaching as a process for learners, the universities should have the procedure to conduct students' surveys, at their workplace, to improve overall performance (**Nair et al., 2011**) on a regular basis. Instructors should adopt various teaching methods, by considering diverse learning styles, to promote the campus's right learning environment (**Alshami and Al Maghraby, 2013**).

11. Conclusion

The paper empirically examined the business students' perception of their learnings, at the University of Hail, Kingdom of Saudi Arabia. The research proposed five hypotheses, to test the model fit. The study's findings indicated that all five assumptions supported the students' perception of their learning in the competency building. The study also highlighted the five factors, considered by performing SEM after the EFA and CFA. The study could provide a strong prediction of students' perception of their learning, in developing students' competencies, for the University of Hail, Saudi Arabia, and the other universities across the country and the world. Each factor in the study has its individual and collaborative contribution to students' learning and competency building.

12. Limitations of the Study

While there are thirty-three universities in the kingdom of Saudi Arabia (**MOE, 2021**), the study was limited to business students of University of Hail of Kingdom of Saudi Arabia. The students shared their experiences during the period of Covid-19 pandemic, when the students' learning mode was online.

13. Scope for Further Research

The students' perception of factors and variables, would provide a basis for further research in higher educational institutions, to improve teaching and learning quality to build students' competencies.

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Table-1: Results of Convergent and Discriminant Validity

	CR	AVE	MSV	MaxR(H)	SLA	SLPCB	SSML	UPTP	SLRF
SLA	0.871	0.629	0.608	0.88	0.793				
SLPCB	0.916	0.646	0.608	0.918	0.78	0.804			
SSML	0.876	0.587	0.558	0.887	0.747	0.72	0.766		
UPTP	0.88	0.596	0.465	0.886	0.501	0.563	0.682	0.772	
SLRF	0.817	0.529	0.468	0.824	0.622	0.533	0.684	0.441	0.727

Source: (Gaskin, 20016), “Name of section”, Gaskination’s StatWiki. <http://statwiki.kolobkcreations.com>

Table-2: Justification of Hypotheses

Path from->to	Standardized Estimate	Standard Error	t-value	p-value	Findings	Conclusion
H01: SLA->OSLP->SLPCB	1.190	0.90	13.215	***P<.001	Fail to accept H01	Supported
H02: SLRF->OSCL->SLPCB	0.728	0.086	8.47	***P<.001	Fail to accept H02	Supported
H03: UPTP->OSCL->SLPCB	0.873	0.102	8.60	***P<.001	Fail to accept H03	Supported
H04: SSML->OSCL->SLPCB	1.358	0.129	10.53	***P<.001	Fail to accept H04	Supported
H05: OSLP->SLPCB	1.098	0.103	10.62	***P<.001	Fail to accept H05	Supported

Chi-square (df)=324 (247); p<.01 IFI=.925; CFI=.925; RMSEA=.068; CMIN/DF =2.494

Figure-1: Measurement Model of Students’ Perceptions of their Learning

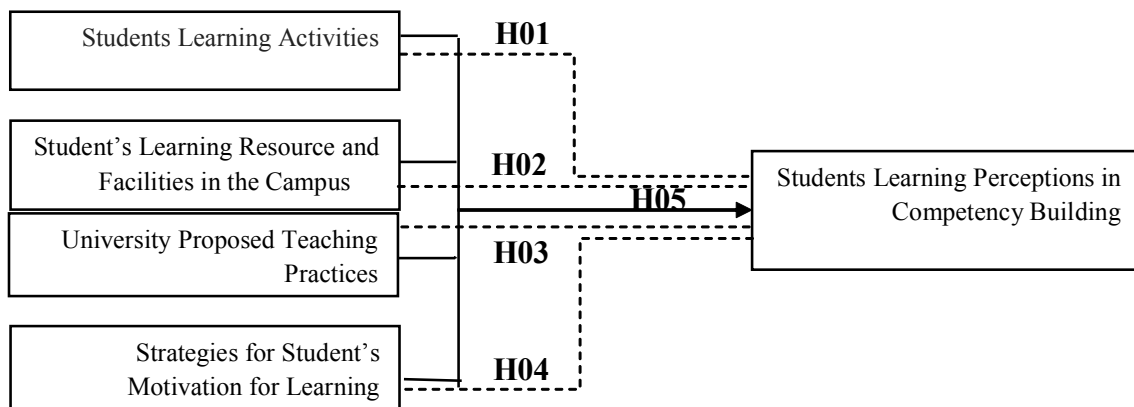
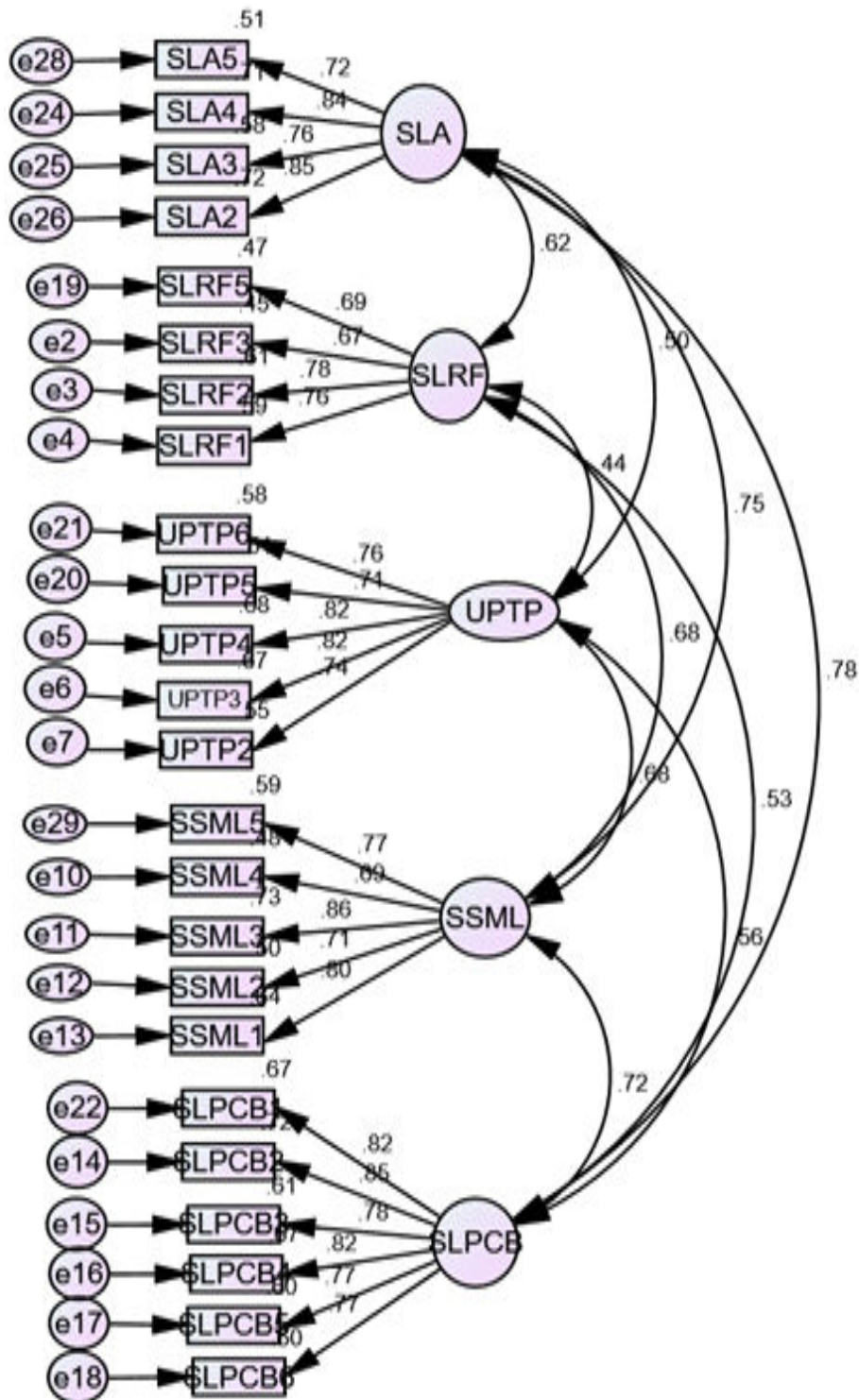
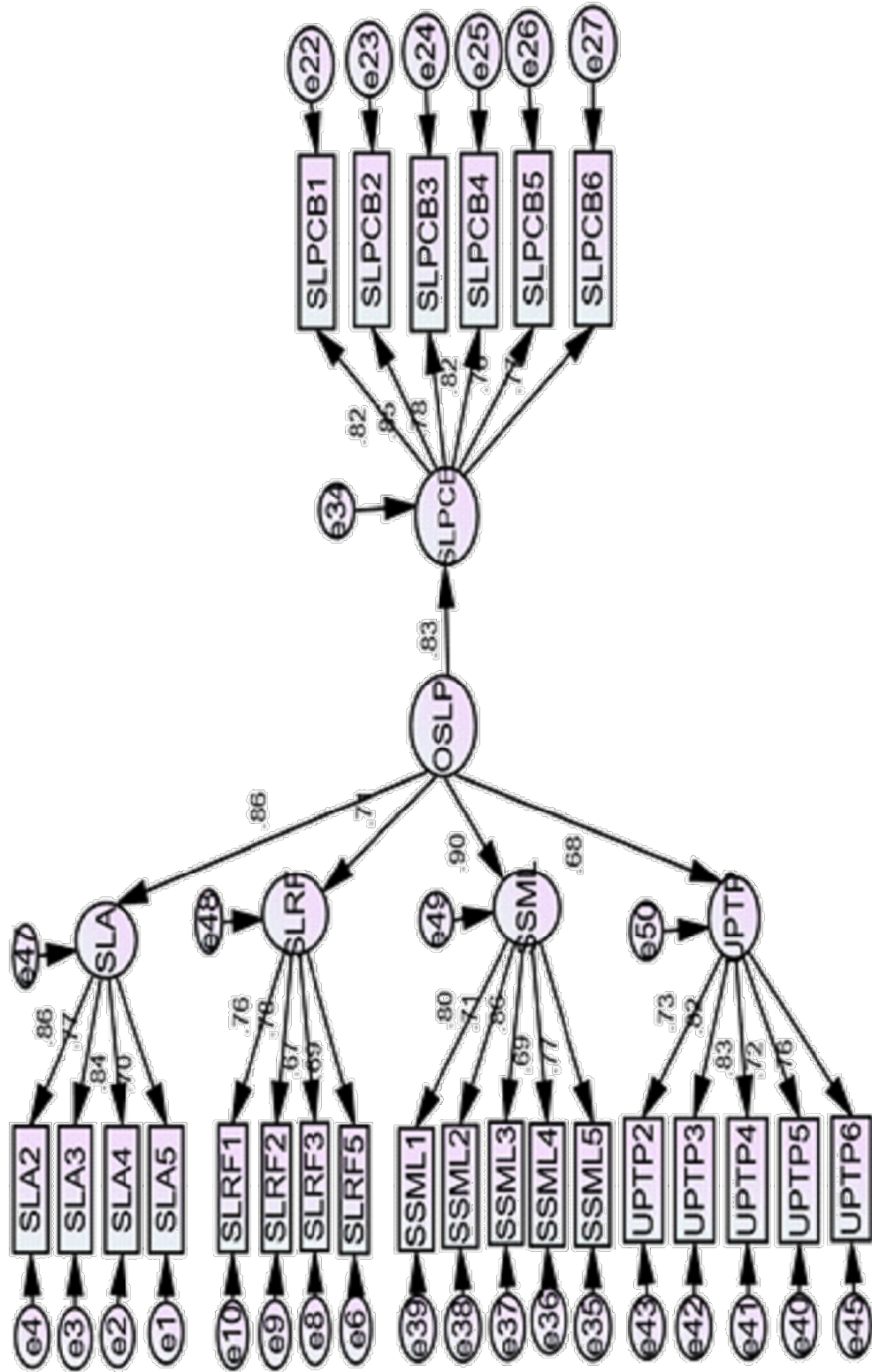


Figure 2: Findings of the Confirmatory Factor Analysis (CFA) of Students Perception.



Source: Students' Survey Data and SPSS AMOS Output

Figure-3: Findings of the Structural Equation Modeling (SEM)



Source: Students' Survey Data and SPSS AMOS Output

**MANAGEMENT AND GOVERNANCE PRACTICES IN
NON-GOVERNMENTAL ORGANIZATIONS : EVIDENCE FROM THE
TUNISIAN CONTEXT**

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Abstract

This paper proposes to assess whether Non-Governmental Organizations (NGOs), in the Tunisian context, are implementing principles of good governance and good management. Using a questionnaire to conduct the survey, the empirical results, obtained from 27 NGOs, revealed that “the application of accountability” and “the mission implementation” were the most relevant variables, that characterized governance and management in Tunisian NGOs. Further, the cross sectional regression indicated that the governance quality improved positively the management quality in the non-profit sector.

Keywords: Governance, Management and Non Governmental Organizations.

JEL Code: G39, L31, M10 and M19.

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1. Introduction

The role of non-governmental organizations, in the production of services of general interest, has become one of the most debated issues in recent years. Since the end of the 1990s, researchers have observed a significant rise in NGOs against the background of increasing media coverage of people's needs and recourse to humanitarian aid after armed operations. The concept of governance helps NGOs to face changes and implement relevant practices in this field in order to achieve their objectives. According to **Freeman and Reed (1983)**, these organizations play a crucial role in completing the missions assigned to them and in satisfying the different stakeholders (**Quéinnec and Haddad, 2004; Binder, 2007**). However, **Bayle (1999, 2001 and 2007)**, **Quéinnec and Igalens (2005)**, **Boncler (2006)** and **Causton (2008)** observed that governance practices, within NGOs, can, in turn, affect their management, the main components of which are ethics (**Aoun 2001, D'elloy 2004, Zieglé 2006 and Montclos 2008**), the functioning of the entity (**Wassenaar 2006, Valéau 2003, Quéinnec and Igalens 2005 and Bartoli 2005**) and managerial performance (**Bayle 1999**). These pillars are closely related and any positive or negative change in one leads to a change in the other. Thus, as indicated by **Bayle (1999)**, managing ethics, grounded in social principles, NGOs achieved managerial performance (fulfilling the mandate, satisfaction of beneficiaries, and promotion of the social sphere...). Consequently, implementing basic governance principles (transparency, responsibility, accountability and fairness) may help to face these challenges. Indeed, the more the NGO integrates these components in the decision-making and control processes, the more it improves its management quality (**Batifoulier**

2000, Ryfman 2006 and 2007, Rouyat 2000, Bayle 2001 and 2007, Zoukousa 2006 and Garrault 2008).

2. Review of Literature

The relevant literature traces the main arguments, leading to the genesis of governance, mainly within companies and the emergence of the notion of "corporate governance". This notion then evolved over time into a set of principles, guiding the management of firms, to curb lack of "fairness", enhance responsibility of managers and essentially to rally the interests of the different stakeholders. In other words, promoting governance practices amounts to transparency, responsibility, fairness and accountability. According to **Charreaux (1997)**, **Quéinnec and Haddad (2004)**, **Binder (2007)**, **Boncler (2006)** **Charreaux (2002)**, governance of NGOs is the set of mechanisms for resolving conflicts of interest, allocating financial resources in an optimal manner and achieving the objective of the organization through the establishment of the role and responsibilities of the various bodies of the NGO **Renz DO (2007)** and the implementation of means to achieve a reliable and efficient structure. Such governance is sought in order to achieve the NGO's mission, set the responsibilities of the actors, promote transparency and overcome the complexity of the relationship between volunteers and employees. Several studies have clearly shown that such governance can only be effective when it is translated into a partnership between heterogeneous stakeholders. In this regard, **Charreaux (2000)** and **Valéau (2003)**, **Boncler (2006)** also propose a partnership model, based on stakeholder governance of NGOs. The literature indicates that NGO governance is guided by a set of social economy, principles of non-profitability, independence and

management autonomy principles. Therefore, the foundation of NGO governance is “decision-making”, i.e., good governance is allowing for appropriate decision-making throughout the NGO managerial process. In addition, good governance makes it possible to face crises and dysfunctions, likely to affect the organization. In short, good governance is tested only in bad times (**Batifoulier 2000, Ryfman 2006 and 2007, Rouyat 2000, Bayle 2001 and 2007, Zoukoua 2006 and Garrault 2006**).

On the other hand, management of NGOs is assessed by its three key components, namely, ethics, operation mechanisms of NGOs and finally, managerial performance. Once ethics is respected, it facilitates the management of the NGO but it generates crises and dysfunctions when abused. The management of an NGO essentially revolves around the project or the mission to be accomplished, **Hasmath Reza and Hsu Jennifer (2016)**. Operation mechanisms are broken down into several phases. The essential phase is to prepare the implementation of a project or a mission, according to the needs mentioned by the target beneficiaries. The other phases represent the implementation of the mission. It is about looking for the right path, that leads to the achievement of the NGO’s objectives. Permanent control allows for checking the success rate of the NGO operating process. Performance is considered to be the third pillar of NGO management, **Bucoy, Juliet (2011)**. It is studied differently from that of companies, given the absence of any measure of financial profitability or monetary outputs. Indeed, several researchers, including **Moore, M. and Stewart, S. (2000), Bayle (2001), Oster (1995), Knauft, Berger and Gray (1991) as well as Valéau (2003)**, predict that the measurement of the performance of an NGO is only carried out through evaluation of

actions in relation to a purely qualitative mission. This performance is displayed through three levels, which are closely linked to the project or mission of the organization. Researchers distinguish between social performance, technical-economic performance and political performance.

3. Statement of the Problem

Good governance is an everlasting challenge for any organization. This highlights the importance of the key fact that NGO management, sets the operational mechanisms, necessary to implement the mission of the NGO. Hence studying the contribution of governance to NGO management is a legitimate research venue to pursue, especially in an emerging country like Tunisia. This is a well justified research on this theme, which is almost totally absent in these countries. The main problem, to which this study tries to provide theoretical and empirical answers, is the nature of the contribution of governance to the management of NGOs. In other words: *Can the quality of governance contribute to improving the quality of NGO management in Tunisia?*

4. Need of the Study

As a result, any NGO strives not only to promote the quality of its governance but also to link it with performance and management. Accordingly, it is very important to study the nature of the relationship between governance and management of NGOs. Indeed, previous studies showed little interest in examining this topic at an international level. Therefore, this study aims to fill this gap and enrich the relevant literature.

5. Objectives of the Study

- i) To improve the practice of governance in the management of NGOs.

- ii) To investigate the relationship between governance and management in NGOs.

6. Hypotheses of the Study

H-1: Governance quality improves the management quality of NGOs.

H2: Governance quality is neutral compared to the quality of NGO management.

H3: Governance quality disrupts the quality of management of NGOs.

7. Research Methodology

The aim of this study was to determine the impact of governance mechanisms on the management of Tunisian NGOs.

7.1 Sample Selection

The sample of the study mainly consisted of Tunisian NGOs, whose reach goes beyond the national level.

7.2 Sources of Data

The researchers interviewed those involved in the governance or management of the NGO, i.e. members of the board of directors, executive directors and presidents. The researchers identified 27 active Tunisian NGOs. The final number of NGOs, from whom data were obtained about their governance and management practices, was 21 (**Table-1**).

7.3 Period of the Study

The present study was initiated and the data were marshaled, during the period from January to May 2016.

7.4 Tools used in the Study

Data were analyzed by using Descriptive Statistics, ANOVA and Regression, with the aid of Statistical Package for Social Sciences-SPSS.

8. Data Analysis

8.1 Choice of Variables

In order to determine the contribution of governance to NGO management, the researchers developed a questionnaire which was administered to the sample Tunisian NGOs.

8.2 Empirical Validation of the Determinants of Governance Quality and Management Quality in Tunisian NGOs

i) Descriptive analysis of management quality and governance quality of Tunisian NGOs

The results are reported in **Table-2**. Generally, all respondents often agreed that all activities were effective within their organizations. Indeed, this reflected a good quality of management in Tunisian NGOs. Quality of governance was assessed through the degree of application of basic governance principles by NGOs. The results are reported in **Table-3**.

ii) Factor analysis of the determinants of management quality and governance quality

The factor analysis was conducted to assess the relationship between management quality of NGOs and the four basic principles of governance. The results revealed that the variables, “application of accountability” and “application of transparency”, contributed the most to the factor 1, quality of governance of NGOs. In general, however, the four principles are very representative of the factor. The loadings of each variable were very high. The application of the four principles would determine the quality of governance of NGOs with the more supreme role for accountability, transparency and responsibility. Results, regarding management quality, revealed that all the four

items of the managerial process were largely represented in the model. Indeed, the definition of the mission, its implementation, its monitoring and evaluation and communication with the stakeholders, were very significant in determining the quality of management of NGOs.

iii) Analysis of the impact of governance on quality management in Tunisian NGOs

In this research, component (G) indicated the quality of governance of Tunisian NGOs. The component, to assess the quality of management of NGOs, was denoted by (M). The results have revealed that transparency improved the management of NGOs, as a valuable input, responsibility as a decisive input and fairness and accountability as two medium inputs. The linear regression will clarify more the nature of the contribution.

8.3 Descriptive Statistics

Descriptive Statistics reported that Tunisian NGOs enjoyed good management and governance systems. The extreme scores of these two variables ranged between 2 and 5, which indicated that there was no NGO, with poor management or with poor governance practices. In addition, management and governance scores indicated that the latter generally recorded high values (3, 4, 5), at 95% and 98%, for each of the scores respectively. Similarly, the results revealed close pair-wise scores: 33.8% of cases of management score = governance score and 32% of cases of governance score > management score (Table-4).

The objective was to predict the quality of management (M), rated through the quality of governance of NGOs, denoted as (G). The regression was written as follows: $M_i = \alpha_0 + \alpha_1 G_i + \varepsilon_i$ and the hypothesis was tested.

$$H_0: \alpha_1 = 0 \text{ and } H_1: \alpha_1 \neq 0$$

The results of ANOVA analysis of variance are presented in Table-5A. For a model to be relevant, the contribution of the independent variable, in our case, quality of governance (G), should be of a high value and the residuals between the observed values and the regression line should be low. To test this relevance, the data were subjected to the Fisher test. By calculating this statistic, the results tested the hypothesis that none of the independent variables could contribute to explain (M). According to Table-5A, $F = 8.195 > 1$ and in addition, $\text{Sig.} = 0.006 < 0.05$. Hence the result rejected the null hypothesis of lack of contribution of governance to management of NGOs. There is, therefore, a statistically significant relationship between quality of governance and quality of management in this regression. According to Table-5B, $R = 0.339$, indicating a rather poor quality relationship (R was less than 1) and the correlation coefficient, squared, at $R^2 = 0.115$. In other words, the proportion of the variability of the dependent variable (M) could be explained by the regression model. Moreover, as a general rule, R^2 being 0.2 was considered weak, between 0.2 and 0.4, moderate, and above 0.4 strong. Accordingly, the quality of governance could explain 11.5% of the variation of the quality of management of NGOs. This rate seemed to be low compared to the theoretical result, which implied that governance adequately improved the quality of management of NGOs, and hence hypothesis one is confirmed and also the rejection of hypothesis two and three of our research.

76.9% of respondents affirmed that governance was not widespread in Tunisia,

- Dispersed role of management at 46.2% indicated that executive tasks were done by

the Board of Directors while 30.8% stated that it was done by executive management.

- Application of the four basic governance principles, was partial in Tunisian NGOs and that quality of governance could explain 11.5% of the variation of the quality of management. It was an unexpected outcome, in contrast to the results of researchers like **E. Bayle (2000)**, **J. Carver (2006)**, **E Quéinnec and L Haddad (2004)**, **Junki Kim (2003)**. Indeed, these pioneers of research on NGO governance insisted on the valuable contribution of governance to the management of tertiary sector structures. Then, conducting a sensitivity analysis, should give value to our two key parameters, **(Table-5C)**. The sign of the coefficient of governance α was positive: $= 0.339 > 0$. This confirmed hypothesis one, which states that governance appropriately improves the management of NGOs Hence the **H-1: governance quality improves management quality of NGOs**, was accepted. Bearing on this finding, the study writes the following regression equation:

$$M = 0.339 G - (1.376) E^{-16}.$$

There is also a positive relationship between the independent and dependent variables, i.e. between governance and management. In other words, if governance were to improve by one unit, quality of management would increase by 33.9%. For the intercept, it simply signified whether it was different from 0. The study has concluded that the probabilities of obtaining a t-value of 2.863, if the value of the intercept α was zero and less than 0.05 ($p = 0.006$), α was therefore, different from zero and hence the quality of governance did contribute significantly to predicting the quality of management of NGOs. This model cannot be generalized, given

the low coefficient or the poor quality of this relationship, as indicated by our data. This was also confirmed by stakeholders' responses, at 47.7%, who stated that governance provided valuable contribution to management, against 36.9%, who claimed that this contribution was decisive. Neutral contribution was rejected. Thus the quality of governance improved the quality of management of NGOs. However, the degree of improvement was slightly low, given that the concept was still in the implementation and positioning phases. Hence Tunisia should seek ways to promote governance for its NGOs, to positively affect the quality of their management.

9. Finding of the Study

- The result found a statistically significant relationship between quality of governance and quality of management, through the simple linear regression method.
- The results also revealed that improvement of management, through governance in NGOs, was of a low potential and inconsistent with what the regression data showed.
- Therefore, it is recommended to promote governance in the non-profit sector, through training managers, setting up an institutional framework, able to oversee governance and management, rectifying the regulations in effect, encouraging structures to be fully implemented and applying basic governance principles.
- In conclusion, the study accepted the hypothesis one.

10. Suggestions

In general, the contribution of governance to the management of NGOs is significant. However, in the Tunisian context, governance, within NGOs, was still under construction and

its contribution to improving management remained a little low, given that the concept was not too widespread among Tunisians. The results should broaden the perspective of the small number of studies, that have examined this topic, such as **Oster (1995)**, **E. Quénec and L. Haddad (2004)**, **EA Zoukous (2006)**, **J. Boncler (2006)** and **E Bayle (2007)**.

11. Conclusion

The study tried to determine the contribution of governance to management of NGOs. Governance improves the management of NGOs, through its four principles of decision-making and the promotion of control activity (H1 must be accepted). Thus, it reduces management abuses and possible dysfunctions, by improving the nature of the relationship between the different stakeholders, promoting collaboration among members and upholding the social objectives. Governance, therefore, is of crucial importance to non-profit entities. As **P. Ryfman (2006)** put it: "being an NGO does not exempt you from having to govern yourself". In fact, it is the tool, to put in place relevant and functional practices, to lead to the success of the mission. In this regard, the results confirmed hypothesis one: quality of governance improves the quality of management of NGOs. But in the Tunisian context, governance within NGOs is still under construction.

12. Limitations of the Study

The present study was made during a transition period, after the Tunisian revolution, which might have influenced the quality of the data collected and the significance of the results.

13. Scope for Further Research

This study was carried out in the Tunisian context. The researchers would like its scope to be expanded to make it meaningful in the

international context. This will make it possible to establish a comparative study to improve governance practices within the various NGOs.

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Table-1: Sample of Tunisian NGOs (2016)

Sl. No.	Tunisian NGOs	Number of directors
1	Young international chamber (jci)	6
2	Tunisian Union of Social Solidarity (UTSS)	5
3	Tunisian union for the mentally retarded (utaim)	2
4	Tunisian General Labor Union (ugtt)	6
5	Tunisian union of industry, commerce and crafts (utica)	4
6	Ettaâouen association	2
7	Tunisian association for cultural and artistic development	2
8	Child voice association	4
9	Tunisian consumer organization (odc)	2
10	Tunisian scout association	3
11	Kairouan association for integrated development (akdi)	2
12	SOS children's villages tunisia	2
13	Tunisian organization for education and the family (otef)	3
14	Tunisian League for Human Rights (ltdh)	4
15	Tunisian forum for economic and social rights (ftdes)	3
16	Association unesi	4
17	Union of workers of tunisia (utt)	3
18	Tunisian Association of Democratic Women (ATFD)	4
19	Amnesty tunisia	2
20	General union of students of tunisia (uget)	1
21	Union of graduates-unemployed (udc)	1
	Total number of directors	65

Source: Primary Data computed using SPSS (2016)

Table-2: Description of the Effectiveness of NGO Activities

	not totally agree	quite agree	moderately agree	often agree	Totally agree
The definition of the mission.	-	-	15.4	47.7	36.9
The implementation of the mission.	-	-	18.5	43.1	38.5
Monitoring and evaluation of the mission.	-	7.7	21.5	35.4	35.4
Communication with stakeholders.	-	3.1	23.1	44.6	29.2
Management of activities.	-	6.2	29.2	40	24.6
The search for funding.	-	13.8	27.7	30.8	27.7

Source: Primary Data computed using SPSS (2016)

Table-3: Description of the Application of Governance Principles during the Mission of the NGO

	Completely applied	Partially applied	Still to position
Transparency	69.2	26.2	4.6
Fairness	36.9	52.3	10.8
Accountability	63.1	32.3	4.6
Responsibility	43.1	53.8	3.1

Source: Primary Data computed using SPSS (2016)

Table-4: Results of Descriptive Statistics of the Quality of Management and Quality of Governance of NGOs, (2016)

	<i>Quality NGO management: M score</i>	<i>Quality NGO Governance: G score</i>
<i>Mean</i>	3.83	4.2
<i>Median</i>	4	4
<i>Maximum</i>	5	5
<i>Minimum</i>	2	2
<i>Std Dev</i>	0.876	0.73
<i>Skewness</i>	-0.227	-0.565
<i>Kurtosis</i>	2,258	2.854
<i>JB (p-value)</i>	0.358	0.171
<i>Score = 0</i>	0	0
<i>Score = 1</i>	0	0
<i>Score = 2</i>	3	1
<i>Score = 3</i>	20	9
<i>Score = 4</i>	26	33
<i>Score = 5</i>	16	22
<i>GS / MS = 1</i>	33.8%	
<i>GS / MS > 1</i>	32.3%	
<i>GS / MS < 1</i>	33.8%	

Source: Primary Data computed using SPSS (2016)

Table-5A: Results of Analysis of Variance for Analysing Impact of Quality of Governance on Quality on Management

ANOVA						
Model		Sum of squares	Df	Average of squares	F	Sig.
1	Regression	7.367	1	7.367	8.195	0.006a
	Residual	56,633	63	0.899		
	Total	64,000	64			
at. Predicted values: (constant), quality of governance						
b. Dependent variable: quality of management						

Source: Primary Data computed using SPSS (2016)

Table-5B: Results of Model Summary for Analysing Impact of Quality of Governance on Quality on Management

Model summary				
Model	R	R-two	R-two adjusted	Standard error of estimate
1	0.339a	0.115	0.101	0.94812586
at. Predicted values: (constant), quality of governance				
b. Dependent variable: quality of management				

Source: Primary Data computed using SPSS (2016)

Table-5C: Results of Coefficients of Regression for Analysing Impact of Quality of Governance on Quality on Management

Coefficients a					
Model	Non-standardized coefficients		Standardized coefficients	t	Sig.
	AT	Standard error	Beta		
(Constant)	-1.376E-16	0.118		0.000	1,000
quality of governance	0.339	0.119	0.339	2,863	0.006
at. Dependent variable: quality of management					

Source: Primary Data computed using SPSS (2016)

**FACTORS INFLUENCING MANAGEMENT DECISIONS OF
MANUFACTURING COMPANIES IN ETHIOPIA**

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Abstract

This study aims to investigate, factors affecting the management decisions of manufacturing companies, in Ethiopia. The study examined the effects of the accounting information system, managers' level of education, managers' experience, organizational size, environmental factors, corporate culture, pressure and stress, and risk management decisions. The study is descriptive and explorative. It included a sample of 140 manufacturing companies, engaged in wood and pulps production, non-metallic and chemicals, and its product in Ethiopia, and

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a questionnaire was distributed to them. The study revealed significant and positive relationship between accounting information systems, management experience, the management level of education, environmental factor, organizational culture, pressure and stress, risk and management decisions. Further, the risk factor showed a positive and insignificant effect on management decisions. The results also found that there was negative and insignificant degree of relationship between management decisions and organizational size.

Keywords: *Accounting Information, Experience, Organizational Size and Management Decision*

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1. Introduction

One of the most important factors defining the success or failure of the company is management's decision. Therefore, it is necessary to inspect the decision-making practice and related issues (**Khakheli and Morchiladze, 2015**). Decisions are the spirit of management and active in all the company's plans of activities and results. The study of the decision-making process is getting more and more important because the effectiveness of the activities, taking place in business, depends on the way decisions are primarily designed and implemented. When we look at the nature of decision-making, the constant and always the present factor is the decision-makers (**Omarli and Deborah, 2017**).

Many factors influence the management decision-making process. Frequently, decisions are made, without careful consideration of these factors or their status. Sometimes, one element is so understandable that it overpowers the others. The best decisions result when the factors are defined and then analyzed as a whole. Manager's decision mainly depends on several factors such as the manager's level of education, experience, accounting information system, environment, and organizational size. It should be mentioned that professional managers

should be well aware of the responsibility for the decisions made (**Omarli and Deborah, 2017**).

Among business organizations classified globally, manufacturing firms contribute more to the country's economic growth and profitability size, produced within a given period (**Mohammed., 2017**), especially decisions particularly related to environmental protection and resource management (**Alshebami, 2021**). In Ethiopia also, manufacturing sector is among the key productive sectors of the economy, recognized under GTP I (2010-2015), which can spur economic growth and expansion because of its massive potential for wealth creation, employment generation, and poverty mitigation. Their success depends primarily upon management skills and abilities, and these skills can vary widely among different managers (**Tewodros, 2009**). One of the managerial job's critical functions is decision-making and decision-making is considered the primary duty of the top managers in an organization. It is vital that the decisions made by the managers, need to be beneficial to manufacturing companies. But the knowledge regarding management decisions is limited. The impact of determinants, related to decision-making, is unclear. Hence, the study to investigate the key factors, that affect the management decisions, in manufacturing companies in Ethiopia.

2. Review of Literature

An attempt has been made to trace the previous research, conducted on the topic under study. **Nooraie (2012)** investigated the factors, influencing strategic decision-making processes in Abhar Branch, Iran. The study's findings showed that research on contextual factors affecting strategic decision-making process, is either limited or have produced contradictory results, especially studies, relating to decision's familiarity, the magnitude of impact, organizational size, firm's performance, dynamism, hostility, heterogeneity, industry, cognitive diversity, cognitive conflict, and manager's need to achieve strategic decision-making processes. **Mehrotra and Gopalan (2017)** analyzed the factors influencing the strategic decision-making process for the oil/gas industries of UAE. The study reported significant factors, that influence strategic decision-making for UAE Oil/Gas operating companies' international business. **Hovi (2016)** also researched the managerial decision-making and management accounting information in Tecnotree Group. The study reported that the management should have financial information reports available, to support decision-making in many areas. The results also indicated that these reports affect decision-making and management is likely to act, based on the information received.

Ullah et al. (2014) also revealed that there was significant relationship between accounting information and strategic decisions and strategic decisions. **Khakheli and Morchiladze (2015)** reported, in their study, the most critical factors as leadership qualities, the culture of the leader, the environment where the decision is made, certainty, risk, uncertainty, time, and related factors. **Omarli (2017)** disclosed that MIS affects the managerial decision-making process and plays a crucial role in providing a wide range of streamlined options from which decision-

makers can make their preferred choices. This ensures that whatever choices are made by decision-makers, the outcome, more often than not, becomes positive. **Becker and palmer (2009)** found negligible difference between the two countries' decision-making, based on countries than initially anticipated. **Tesfaye (2009)**, in the study entitled, "Assessment on the use of Management Accounting Information for Decision Making and Management Control: A Case Study of Some Selected Manufacturing Companies in City of Addis Ababa", indicated fair use of management accounting information in manufacturing companies in Addis Ababa. It also showed how managers, who employed management accounting information, were effective in their decision and control. **Legesse (2009)** showed that managers are mostly influenced by the accounting information. Besides, managers' dedication to incorporating accounting information in their decision-making was found to be weak. In other words, managers were not comfortable with making decisions with the type of data being produced. **Gemmechu (2009)** found that the MIS was not up to expectations and it is not automated to support management decisions as well. Managers' decision-making processes, in commercial banks in Ethiopia, were highly influenced by MIS's availability and utilization, to achieve their organizational goals and objectives. From the above literature review and empirical studies, it seems interesting to investigate the most significant factors, that affect the management decisions, in the manufacturing companies of Ethiopia. The conceptual model given in **Figure-1** explains the factors influencing management decisions.

3. Statement of the Problem

The success and failure of business organizations depend entirely on the decisions taken by the management, particularly in developing countries such as Ethiopia. The study

is descriptive and explorative, to investigate the key factors affecting the management decisions, in the Ethiopian manufacturing companies.

4. Need of the Study

This study proposes to provide, a new theoretical framework, on the factors influencing decision-making in Ethiopian manufacturing companies and to offer some practical recommendations, to policymakers to follow and improve the decision-making process.

5. Objectives of the study

To identify the key factors affecting the decision-making process in the Ethiopian manufacturing companies.

6. Hypotheses of the Study

NH-1: There is no significant effect of accounting information systems on management decisions.

NH-2: There is no significant effect of managers' experience on management decisions.

NH-3: There is no significant effect of managers' educational level on management decisions.

NH-4: There is no significant effect of environmental factors on management decisions.

NH-5: There is no significant effect of organizational size on management decisions.

7. Research Methodology

7.1 Sample Selection

There were 1,307 manufacturing firms in Addis Ababa, according to the Central Statistical Agency (2015). The targeted population included three manufacturing sectors, i.e., wood and pulp products and chemicals and hence the total target population was 220 and the sample size was 140.

7.2 Sources of Data

The study included both primary and secondary information. Preliminary data were collected from the questionnaires, distributed to the companies whereas secondary information was obtained from various available sources.

7.3 Period of Study

The study covered the period from 2010 to 2020 but the primary data were collected in 2020.

7.4 Tools used in the Study

The study employed SPSS software and applied the multiple regression analysis and other necessary tests.

8. Data Analysis of Factors Influencing Management Decisions of Manufacturing Companies

Table-1 shows the relationship between management decision as the dependent variable and factors affecting management decision as independent variables. Based on the value of 'r', indicated in the **Table-1**, there was no perfect positive or negative correlation between variables. But there was positive correlation between Accounting Information System (AIS), Management Experience (MAEX), Management Level of Education (MALE), Environmental Factor (ENVTF), Organizational Culture (ORGC), and Risk (RI) Pressure and Stress (PRST) and Management Decision (MADE), which varied between weak, medium and robust relationship among the variables. However, there was weak and negative correlation between Management Decision (MADE) and Organizational Size (ORGSZ), with an R-value of -0.066. It can be concluded that the variation of dependent variables, included in this study, changed in the same direction (positive), with a variation of four independent variables and three control variables and changed in the opposite direction, with one independent variable, which is the organizational size (ORGSZ).

Table-2 shows that the management decision was measured by five independent variables and three control variables, a total of eight variables. It also presents R-value at 0.901, R² at 0.811 and Adjusted R Square at 0.796. The coefficient of determination revealed that about 90 percent of the variation in management decision, for a sample of 140 manufacturing companies in Addis Ababa city, could be explained by accounting information system, management experience, the management level of education, company's size, environmental factors, organizational culture, risk and pressure, and stress. The remaining 10 percent could be explained by other factors, which were not incorporated in this model. As revealed in **Table-2**, this model significantly determined core factors that affected the samples 140 manufacturing firms in Addis Ababa, Ethiopia. **Table-3** presents the summary results of the variance analysis and F-test statistics for multiple regression analysis of data, processed by SPSS V-21. It revealed a mean square value of 106.853, with a value of F at 53.657, which was significant at 0.000 i.e., the regression model is an excellent fit of the data. F's value was large enough to conclude that the set of independent variables, as a whole, contributed to the variance of management decisions, measured by those factors. Further, it revealed the significance of the multiple regression model, employed for this study. **Table-4** presents the coefficient results of variables, along with their t-value and significance level. According to the result shown, out of eight factors identified as independent variables, six variables significantly influenced the management decision, based on the significance level and the t-statistics and probability values of each variable. The remaining two factors were insignificant, considering its significance, its value computed by SPSS V-21. This minor factor, at 0.05 levels,

included the organizational size with the coefficient value (Beta) of -0.142 and risk with a coefficient value of 0.117. The results revealed that the accounting information systems, managers' experience, managers' educational level, environmental factors, and organizational size, at significance values of 0.000, 0.000, 0.000, and 0.000 respectively, were less than 0.05. According to the decision rule, reject the null hypothesis, if the significance level value was more significant than the significance level value adopted and accept the null hypothesis, if the significance level value was less than the significance level adopted. Hence, **NH-1: There is no significant effect of accounting information systems on management decisions, NH-2: There is no significant effect of managers' experience on management decisions, NH-3: There is no significant effect of managers' educational level on management decisions and NH-4: There is no significant effect of environmental factors on management decisions**, were rejected. In other words, there was significant effect of accounting information systems, managers' experience, managers' educational level, and environmental factors on management decisions. The results also revealed that organizational size, with a significance level value of 0.109, was greater than 0.05. Hence **NH-5: There is no significant effect of organizational on management decision**, was accepted. To put it differently, there was no significant relationship between organizational size and management decisions.

9. Findings of the Study

The Pearson correlation results demonstrated the relationship between management decision (dependent variable) and factors affecting management decision (five independent variables and three control

variables). Based on the value of 'r,' there was positive correlation between Accounting Information System (AIS), Management Experience (MAEX), Management Level of Education (MALE), Environmental Factor (ENVTF), Organizational Culture (ORGC), and Risk (RI) Pressure and Stress (PRST) and Management Decision (MADE), which varied between weak, medium and robust relationship. However, there was weak and negative correlation between Management Decision (MADE) and organizational size (ORGSZ), with an R-value of -0.066. The result of Model Summary found that the coefficient of determination at 0.796, indicated that about 90 percent of the management decision of manufacturing firms could be explained by variables, included in the model. This model also revealed the coefficient result of t-statistics and P-value of each variable and their relationship with the dependent variable. This finding demonstrated that the Accounting information system (AIS), managers' experience (MAEX), managers' level of education (MALE), pressure and stress (PRST), and organizational culture (ORGC), reported positive and significant relationship with management decision. There was insignificant effect of organizational size (ORGSZ) on management decision. The study concluded that there was significant effect of accounting information systems, managers' experience, managers' educational level, and environmental factors on management decisions. But there was no significant effect of organizational size on management decisions.

10. Suggestions

The study recommends hiring experienced and highly educated workforce, creating a good relationship with other companies, and using accounting information systems for making the right decision at the right time.

11. Conclusion

The researchers had collected data about factors influencing management decisions, from 140 samples of selected manufacturing companies, engaging in three activities, i.e., chemical, non-metallic, and pulps. The respondents of those selected companies affirmed that their capacity to make decisions was a key criterion for their position as managers. From the discussion and results of respondents' responses above, the study found that they were satisfied with the information provided for making any buy or sell decisions. The findings also indicated that the effectiveness of accounting information system (AIS) was required by various organization users. The study also found that balance sheets, income statements, cost information, and cash flow statements could affect management decisions. The impact of accounting information was frequently reflected in market-related decisions and buy or sell-related decisions. Furthermore, respondents reported that their experience and educational level positively influenced their decision. The respondents' responses had shown that price fluctuation, production and distribution competition, severe regulatory restrictions, age of resources, and unfavorable market demand did affect management decisions. In other words, changes in the price of their production, the competition from other firms and customers or adverse market demand positively influenced manufacturing firms' operation, leading to challenging the managers' decision.

12. Limitation of the Study

The study was an explorative and descriptive study, with a limited sample size and restricted area of the study and hence it may limit its capacity for generalization.

13. Scope for Further Research

The study covered a selected sample of a few manufacturing companies in Ethiopia. Future studies may focus on extending the regions of the research and increasing the sample size. It may also take into consideration the moderation effect of other variables.

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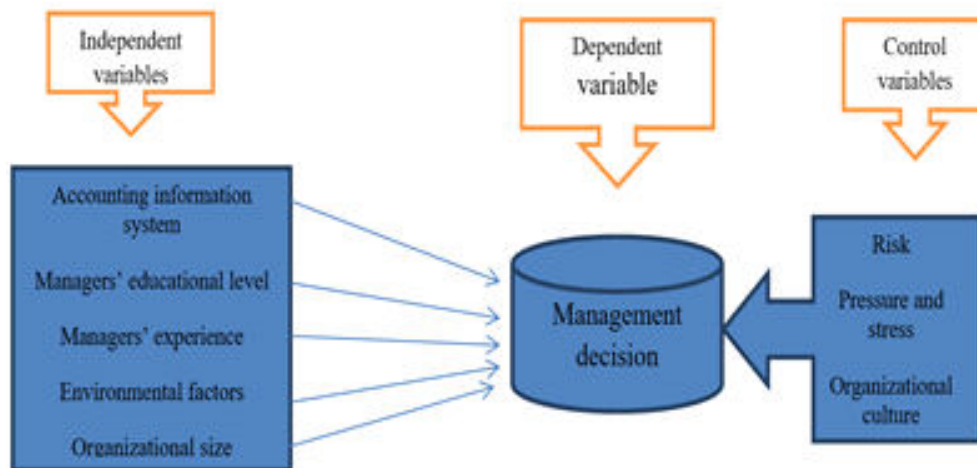
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Figure-1: Conceptual Model



Source: Developed by Authors

Table-1: Results of Pearson Product-Moment Correlation Analysis

	MADE	AIS	MAEX	MALE	ENVTF	ORGSZ	ORGC	PRST	RI
MADE									
Pearson Correlation	1								
Sig. (2-tailed)									
N	109								
AIS									
Pearson Correlation	0.357**	1							
Sig. (2-tailed)	0.000								
N	109	109							
MAEX									
Pearson Correlation	0.355**	0.499**	1						
Sig. (2-tailed)	.000	.000							
N	109	109	109						
MALE									
Pearson Correlation	0.464**	0.391**	0.301**	1					
Sig. (2-tailed)	0.000	0.000	0.000						
N	109	109	109	109					
ENVTF									
Pearson Correlation	0.340**	0.404**	0.364**	0.263**	1				
Sig. (2-tailed)	0.000	0.000	0.000	0.006					
N	109	109	109	109	109				
ORGSZ									
Pearson Correlation	-0.066	-0.020	0.006	0.082	0.166	1			
Sig. (2-tailed)	0.497	0.834	0.955	0.394	0.085				
N	109	109	109	109	109	109			
ORGC									
Pearson Correlation	0.817**	0.321**	0.363**	0.205*	0.139	-0.065	1		
Sig. (2-tailed)	0.000	0.001	0.000	0.033	0.150	0.499			
N	109	109	109	109	109	109	109		
PRST									
Pearson Correlation	0.209*	-0.031	0.079	0.087	-0.055	0.038	0.140	1	
Sig. (2-tailed)	0.030	0.752	0.417	0.368	0.573	0.696	0.146		
N	109	109	109	109	109	109	109	109	
RI									
Pearson Correlation	0.236*	0.050	0.133	0.115	-0.044	-0.140	0.182	0.052	1
Sig. (2-tailed)	0.014	0.609	0.169	0.232	0.651	0.147	0.058	0.592	
N	109	109	109	109	109	109	109	109	109
**. Correlation is significant at the 0.01 level (2-tailed). *.Correlation is significant at the 0.05 level (2-tailed).									

Source: Primary Data computed using SPSS

Table-2: Result of Model Summary for Analysing the Key Factors of Decision Making Process

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.901 ^a	0.811	0.796	1.41117	0.811	53.657	8	100	0.000	1.631

a. Predictors: (Constant), RI, ENVTF, PRST, ORGSZ, ORGC, MALE, MAEX, AIS
b. Dependent Variable: MADE

Source: Primary Data computed using SPSS

Table-3: Result of ANOVA Test for Multiple Regression for Analysing the Key Factors of Decision Making Process

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	854.823	8	106.853	53.657	0.000 ^b
	Residual	199.141	100	1.991		
	Total	1053.963	108			

a. Dependent Variable: MADE
b. Predictors: (Constant), RI, ENVTF, PRST, ORGSZ, ORGC, MALE, MAEX, AIS

Source: Primary Data computed using SPSS

Table-4: Result of Coefficients Results for Analysing the Key Factors of Decision Making Process

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	3.080	1.314		2.344	0.021		
	AIS	0.038	0.042	0.049	.885	0.000	0.620	1.614
	MAEX	0.127	0.091	0.075	1.405	0.000	0.659	1.517
	MALE	0.480	0.083	0.283	5.819	0.000	0.799	1.251
	ENVTF	0.312	0.067	0.231	4.629	0.000	0.756	1.323
	ORGSZ	-0.142	0.088	-0.073	-1.617	0.109	0.934	1.070
	ORGC	0.758	0.050	0.737	15.221	0.000	0.805	1.242
	PRST	0.090	0.041	0.096	2.164	0.033	0.953	1.049
	RI	0.117	0.069	0.076	1.695	0.093	0.928	1.078

a. Dependent Variable: MADE

Source: Primary Data computed using SPSS

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Twelfth SMART Journal Annual Award Function for the year 2020 was held on 29th January 2021 at 2.00 p.m. through Virtual Mode at University Informatics Centre, Bharathidasan University, Trichy along with the inaugural function of the International seminar “**Dynamics on Emerging Business Innovation and Trends – Academia Industry Role (DEBIT AIR 2021)**”.

Dr. M. Selvam, Webinar Director and Founder-Publisher cum Chief-Editor, SMART Journal of Business Management Studies welcomed the gathering. He explained the selection process of SMART Journal Awards and the importance of recognizing the academicians with awards. **Dr. Gopinath Ganapathy**, Registrar, Bharathidasan University conferred SMART Journal Awards to five eminent personalities.

SMART Journal Distinguished Educational Administrator Award was conferred on Mr. M. R. Rahunaathan, for his outstanding contribution in establishing and running educational institutions especially management education. He is administering seven educational institutions such as Meenakshi Ramasamy Arts and Science College, Meenakshi Ramasamy Engineering College, Meenakshi Ramasamy Polytechnic College, Meenakshi Ramasamy College of Physical Education, Meenakshi Ramasamy College of Education, etc. He has written more than 20 books. He has planted five lakhs of saplings under his stewardship. He is a social activist, contributing to the welfare of general public.

SMART Journal Distinguished Life Time Achievement Award was conferred on **Dr. D. Ilangovan**, Professor, Department of Commerce, Annamalai University to honor the outstanding achievements in the field of Commerce. He has more than 30 years of rich research, teaching and administrative experience. He has completed many research projects funded by UGC and ICSSR. He has published more than 70 research articles in refereed journals and attended various national and international conferences. He has organized several Conferences and Symposiums at National and International level. He has authored Tamil Nadu Government Text Books. He received many awards including Best NSS Programme Officer. He serves as editorial, advisory and reviewer positions in many journals too.

Dr. G. Veerakumaran, Professor, Dept. of Co-operative Management, Kerala Agricultural University was virtually conferred with **SMART Journal Distinguished Life Time Achievement Award** for his excellent contribution in the field commerce and management. He has been awarded University Grants Commission Fellowship (NET) and gold medal in B.A with First Class. He has published more than 36 research articles in refereed journals, authored 9 books, and participated in 105 seminars at National and International level. He has visited 9 countries for academic and research purpose.

Dr. G. Indhumathi, Assistant Professor, Department of Commerce, Mother Teresa Women's University was conferred with **SMART Journal BDU COM Distinguished Alumni Award**. She did her Ph.D from Department of Commerce and Financial Studies, Bharathidasan University. She was a University rank holder in M.Com and awarded medal in M.Phil programme.

She has published more than 30 articles in Referred Journals and published 6 chapters in edited books. She has presented more than 50 research papers in conferences at National and International level.

The research paper of **Dr. Manoj Kumar Joshi**, Assistant Professor, School of Business Studies, Sreenidhi Institute of Science and Technology (Autonomous), Hyderabad published in the SMART Journal in the year 2020, has been selected for the **SMART Journal Best Paper Award**.

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