

The Effect of Transformational Leadership on Organizational Learning and Innovation During Covid-19

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ABSTRACT

Purpose – The paper aims to identify the effect of transformational leadership on organizational learning and innovation during the Covid-19 pandemic. The study focused on the way for managing organizational innovation as well as learning by transformational leadership. The understanding of employee performance under transformational leadership during Covid-19 is also one of the objectives of this paper.

Design/Method/Approach – The research was done by adopting descriptive research design. The research was done by collecting and analysing quantitative information. Survey method was used for data collection and statistical methods were used for data analysis. As the research was done by collecting and analysing quantitative data deductive research approaches considered suitable for the study.

Results – The study found that free decision-making of employees has a strong positive relationship with job satisfaction. The research finding is a statically significant relationship between the work performance of employees and innovative steps taken by the employees in the workplace. However, the relationship between the leader's openness towards employee suggestions and job satisfaction of employees was not found in the study. The result of statistical analysis is suggesting that innovation and organisational learning are highly influenced by transformational leadership.

Discussion – Transformational leadership makes employees get more engaged with the workplace. Workplace engagement results in innovation and innovation come from organisational learning. The study shows that implementing innovation in the workplace requires ideas regarding knowledge sharing inside an organisation. During that time that major issue was dealing with limited workforce to keep an organisation operational.

1. Introduction

Leadership is one of the key elements that hold up all the micro and macro components of an organization as a whole. Due to the outbreak of the Covid-19 virus by the end of 2019, the economy of leading sectors around the world started deteriorating. The purpose of the research is to find out the effect of transformational leadership on innovation and organizational learning during Covid-19. As Covid-19 is a sudden outbreak of a virus most of the companies around the world were not prepared for this. It became an unidentified crisis that was very difficult to handle. As mentioned by Buil, Martínez and Matute (2019), transformational leadership results in the understanding of business dynamics. This leadership approach allows the workforce to follow a new and innovative strategy for dealing with different crises (Budur, 2020). This is the reason behind focusing on transformational leadership to address innovation and organizational learning during the Covid-19 pandemic.

The management of a low workforce to deal with huge demand and changing supply-chain is the key task most of the companies are required to deal with during the pandemic. The market positions of a business sector and employee performance are the variables that are taken into consideration for assessing the effect of transformational leadership.

As mentioned by Top, Abdullah and Faraj (2020), transformational leadership enables the perception of handling radical transformation in the business sector. It makes the workforce able to deal with resource crises and changes in operations (Top, Abdullah and Faraj, 2020). The study aims to measure the effect of transformational leadership on innovation and organizational learning during Covid-19.

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The objectives of the research considering the research aim are as follows

- *To understand the way for managing organizational innovation by transformational leadership*
- *To evaluate the influence of transformational leadership on employee performance and workforce management*
- *To understand the dynamicity of organizational learning by transformational leadership.*

Transformational Leadership Theory: As mentioned by Chow, Salleh and Ismail (2017), transformational leadership is comparatively new in the paradigm of leadership theories. This theoretical approach refers to the increase of employee motivation and morality by the leaders. Leaders who used to adopt a transformational leadership approach focus on long-term goals. These kinds of leaders change the employees' perception about work and performing different activities in order to achieve the goals. The major aspect of this theoretical approach is the leader's concern about his or her followers (Cote, 2017). The concerns most of the time result in a high degree of work motivation in a team.

Organizational Learning Theory: According to Birasnav, Chaudhary and Scillitoe (2019), the theory of organizational learning focuses on a collaborative exchange of information between formal teams and individual employees. Here the learning capability refers to the skills for sharing knowledge, experience, and achievements. The exchange of intangible assets is considered as the key for organizational learning. As mentioned by Birasnav, Chaudhary and Scillitoe (2019), the origin of organizational learning relies on employee learning. Employee learning on the other hand is dependent on the external as well as internal environment of an organization.

Theory of Organizational Innovation: As mentioned by Gutierrez-Gutierrez, Barrales-Molina and Kaynak (2018), the dynamic capability approach is one of the most suitable theoretical approaches for organizational innovation. The rapid change in the business sector looks for compatible companies to overcome the diverse situation. This theoretical approach focuses on the adaptive mechanism of an organization to get a competitive advantage during a crisis. According to Gutierrez-Gutierrez, Barrales-Molina and Kaynak (2018), the key elements for addressing the dynamic capability of an organization are firm resources and market position.

Due to the Covid-19 pandemic, almost every business sector in different parts of the world witnessed diverse difficulties. The major issues that arose during that time is the limited workforce and poor supply-chain. Physical communication during the time of Covid-19 became nearly impossible. Most of the companies were struggling to continue their production and maintain the supply chain. 4.9% of the companies around the world had a catastrophic impact due to the limited workforce during Covid-19 (statista.com, 2021). 6% of the companies in different business sectors were heavily affected due to not getting critical supply during Covid-19.

The reason behind selecting transformational leadership is its ability to make employee motivation higher. It allows employees to deal with different situations by addressing innovative solutions. According to Budur (2020), transformational leadership is effective in terms of managing a limited workforce for getting desired objectives. The research will find out how transformational leadership can be most suitable to manage the challenges created by the Covid-19 pandemic. Due to the research, it can be addressed the impact of this specific leadership approach in organizational innovation. Here innovation is considered as a key aspect because the impact of Covid-19 in the business sector is sudden and holds a long-term effect.

The research has addressed the impact of transformational leadership in difficulties and managing crises. It is important to make sure that a company is dealing with new challenges in an innovative way. As addressed by Top, Abdullah and Faraj (2020), transformational leadership allows a workforce to go for innovation. Innovation became highly necessary after the Covid-19 outbreak as it changed the business sector in many ways. The major change that Covid-19 brought is the shift in consumers' behaviour. Innovation in production and marketing is the only way to deal with new issues in the business sector. Transformational leadership during this time can make employee motivation higher.

The study not only focused on innovation in an organization but also highlighted the importance of organizational learning. According to Birasnav, Chaudhary and Scillitoe (2019), the transformation of employee perception towards learning is mostly possible by the transformational leadership approach. The

effect of transformational leadership on both innovation and organizational learning can help companies to deal with the difficulties created by the Covid-19 pandemic.

2. Literature Review

This study focuses on the purpose, method, and findings of previous research in a similar research area. Here the phrase similar research area refers to the use of transformational leadership in organizations and its impact on organizational performances. The study aims to address the transformational leadership effect on innovation and organizational learning during Covid-19. This study aims to understand the way other researchers perceive the concept of transformational leadership and portray the impact of this leadership approach while addressing different crises. The existing gaps in the research area were mentioned in this study. The questions that will help to meet the research objectives and research hypothesis are mentioned in the literature review.

The major question of this study is as follow

- How does transformational leadership influence organisational learning?
- What is the way of increasing innovation in an organization by adopting a transformational leadership approach?
- How transformational leadership is efficient for enhancing employee performances?

The development of the research question was done in a way that the answer will help to meet the research objectives. The aim of the research can be achieved by getting the answers to all three research questions. Based on the objectives and aim of the research hypothesis were developed for the study. Alternative hypothesis and null hypothesis were mentioned below

H₁: Transformational leadership allows the workforce to manage the crisis in an innovative way

H₀: Transformational leadership tends to look for a traditional way to managing crisis

H₂: Transformational leadership widens the path to encourage organizational learning

H₀: The impact of transformational learning in organizational learning is negligible

H₃: The enhancement of employee performance is dependent on the leadership approach

H₀: Employee performance in an organization has no such dependency on leadership approach

2.1. Transformational Leadership Concepts

Eliyana and Ma'arif (2019) stated that transformational leadership is an approach that provides employees the freedom to work in their innovative way. The freedom to work in an individual method enhances employee satisfaction as well as work engagement. According to Eliyana and Ma'arif (2019), transformational leadership has a mediation effect on the achievement of organizational commitment. The mediation effect can be addressed by employee performance and leadership style. Eliyana and Ma'arif (2019) did a quantitative study to understand the effect of transformational leadership on job satisfaction and employee performance. The authors considered transformational leadership as independent variables. They found that the transformational leadership approach adopted by middle-level leaders has a significant impact on job satisfaction.

Buil, Martínez and Matute (2019) addressed transformational leadership as a key approach to enhance employee performance in people-oriented business. The evaluation of transformational leadership in the study was done by identifying employee attributes, emotions and behaviors. They found that transformational leadership has a direct effect on organisational identification (OID) and work engagement (WEN). Proactive personality which refers to acting in a situation rather than making a reaction parallel to transformational leadership has a moderation effect on OID and WEN. Transformational leadership in people-oriented business helps employees to make the interaction stronger between consumers and organisations.

Budur (2020) referred to transformational leadership as an approach to deal with different cultures in a structured organization. Transformational leadership is efficient to address cultural differences. The author found that the acceptance of transformational leadership is higher in some cultures where others do not like

to accept it. The impact of transformational leadership can be seen in terms of intellectual stimulation and individual consideration. Transformational leadership in an organization results in inspirational motivation. Budur (2020) concluded that the raising of collective perception can be done by adapting the transformational leadership approach.

2.2. Impact of Transformational Leadership in an Organization

Continuing the statement made by Budur (2020), transformational leadership helps to make followers achieve the goals beyond expectation. The major impact of TL can be identified in terms of encouraging subordinates to resolve diverse difficulties. It allows employees to express innovative behaviours while finding potential solutions to an issue. Leaders who adopted a transformational approach identified the requirement of changes. Based on the changing requirements, leaders can create an exceptional vision and inspire the employees to achieve the goals. According to Top, Abdullah and Faraj (2020), the major thing that can be addressed by transformational leadership is the enhancement of employee performance. The key factor of transformational leadership is inspirational motivation.

Farahnak *et al.* (2020) identified the effect of transformational leadership on multiple managerial components such as leader attitudes, leadership, implementation success and subordinate attitudes. The major impact of TL is the attitude towards accepting any situational change. The authors mentioned the impact of changing attitudes of leaders on the subordinates' attitudes. The attitude was identified in terms of evidence-based practice. Farahnak *et al.* (2020) found that the positive impact of transformational leadership on the evidence-based practice of employees. It was also identified that change in leaders' attitude is dependent on employees' attitudes. Farahnak *et al.* (2020) further mentioned that the more employees accept changes in an organization the more the success rate increases in terms of implementing evidence-based practice.

Ahmad and Ejaz (2019) studied the growth and profitability of the textile sector by considering the impact of transformational leadership. The authors considered leadership style as one of the major reasons behind the success and failure of a business. Ahmad and Ejaz (2019) made a contrast between the leadership effect on achieving short-coming goals and long-term goals. Both transformational as well as transactional leadership have a positive effect on the growth of the textile business but transformation leadership is more effective in terms of business innovation. Ahmad and Ejaz (2019) further mentioned that transformational leadership is more required for business as it helps to motivate the workforce compared to other leadership approaches.

2.3. Benefits of Transformational Leadership During Crisis Management

A crisis in a company refers to a potential threat in organizational operation that can result in heavy consequences if not taken care of effectively. As mentioned by Bowers, Hall and Srinivasan (2017), leaders play a crucial role in a company to make a way out of the crisis. The effectiveness of a leader can be assessed by his or her capacity to deal with difficulties and making potential solutions to a problem. Crisis management can be done by considering the time to resolve potential threats. A potential leader has to have the quality for resource assessment. It is necessary to look for adequate resources for initiating a crisis management plan. A leader needs to know about the organizational culture before managing and motivating the workforce for dealing with a crisis.

Scheuerlein, Chládková and Bauer (2018) considered the financial crisis as the major threat to an organization. The authors stated that the leadership quality needs to be started by the CEO of an organization. A leader needs to have an appealing, inspirational, and clear vision while operating a workforce. The consideration of both the negative and positive emotions is essential for motivating employees during a crisis. CEOs who adopted transformational leadership mostly focus on economically good times for managing financial crisis. Transformation leaders tend to reduce the emotional words during the crisis. It was also found that most of the leaders used to concentrate on present achievement for motivating employees during difficult situations.

Bhaduri (2019) stated that an organisation requires to develop competencies for transformational leadership during crisis-prone situations. Leveraging culture for identifying the most suitable leadership approach to deal with crisis situations. The author mostly addressed the issues of communication and developing trust between employees and leaders while dealing with crises. Bhaduri (2019) addressed multiple aspects of a leader that can reduce crises. These aspects are decision making, organizational capabilities, communication, effective culture in organization and development of human capital. Transformational leadership addresses

the making of sense perspective, organisational agility, communicating risk-taking and resilience learning and reflecting the learning in managing crisis. Leaders need to make the vision of employees clear to achieve the goals to overcome any crisis.

2.4. The Way Transformational Leadership Support Organizational Learning

Ojha, Acharya and Cooper (2018) mentioned that organisations that have ambidextrous supply chains are more prone to changing business operations. Transformational leadership here plays a significant role in order to manage the workforce for adopting the change. The way TL supports organizational learning is leads by a collaboration of functional units of an organization. Collaboration of functional units tends to enhance the firm's ability that results in the production of innovative goods. Begum *et al.* (2020) identified the three-wave mediating role associated with organizational learning for addressing the way based on which organizational learning gets support from transformational leadership. Begum *et al.* (2020) found out the dependency between psychological empowerment and sustainable organizational innovation for organizational learning led by transformational leadership.

Atan and Mahmood (2019) stated that transformational leaders used to enhance employee's competency for supporting organizational learning. The study found that employee competency is dependent on transformational leadership. TL does impact job performance in a positive way. Atan and Mahmood (2019) portrayed a series of connections between TL, employee competency, organizational performance and organizational learning. Hadi and Tola (2019) focused on the change in employee behaviour due to transformational leadership. According to Hadi and Tola (2019), this specific approach of leadership mainly enhances the work motivation of employees which reflects in employees' innovative behaviour. The impact of transformational leadership can be seen in the employees' ability for idea generation.

The estimation of an individual's creativity in the workplace and impact of organizational innovation can be interpreted by intrinsic motivation. According to Hadi and Tola (2019), the extrinsic motivation from transformational leadership has negative influence on employee's creativity. Sometimes it can be seen that transformational leadership makes employees perform beyond their capabilities that results in avoidance of personal interests. Transformational leadership supports both innovation and organizational learning at the same time.

2.5. Transformational Leadership Influences Innovation in the Different Operational Sector

Innovation in a business brings sustainability and provides competitive advantages. As mentioned by Budur (2020), any organizational proceeding requires the guidance of a leader who can ensure the management of the crisis and workforce/human resources. During the Covid-19 pandemic, a huge shift towards green innovation and management can be seen in different business sectors. Most MSMEs are looking for an energy-efficient supply chain and productions to meet organizational goals (unece.org, 2021). It was seen that focusing on green innovation and green energy can result in a 1.1% growth of global GDP by 2030 (unece.org, 2021). Due to this most companies are looking for green innovation. According to Singh *et al.* (2020), transformational leadership allows the practice of green HRM those results in green product and green process innovation. The environmental performance of a company gets influenced by transformational leadership. It is suggested that a company needs to channelize its strategic assets such as human resource potential towards green innovation (Singh *et al.* 2020).

According to Le and Lei (2019), the innovation capability of human resources depends on the impact of transformational leadership on employee extent. The key element that increases the innovation capability of a company based on transformational leadership is knowledge sharing. Knowledge sharing results in two aspects which are product innovation and process innovation. Le and Lei (2019) stated that transformational leadership is the key to channelize knowledge sharing in product and process innovation. The authors further considered the moderating effect of perceived organisational support to discuss the impact of transformational leadership. The driving force behind the relationship between transformational leadership and knowledge sharing is perceived organisational support. High perceived organisational support enhances the impact of transformational leadership on product and process innovation in an organisation (Le and Lei, 2019).

Li *et al.* (2019) considered employee behaviour towards innovation as a measuring tool for understanding the impact of transformational leadership. Employees' innovative behaviour in the workplace brings

sustainability to business and process innovation. Li *et al.* (2019) uses social exchange theory for developing the relationship between transformational leadership and employee behaviour towards innovation. Transformation leader ensures high engagement of employees with the work which results in innovative work behaviour. Besides that, transformational leadership helps in empowering employees to make effective decisions in the workplace. The major two factors that are the drivers for innovation in a workplace are trust in leaders and work engagement (Li *et al.* 2019).

2.6. Covid-19 Impact on Textile Sector

The impact of Covid-19 is highly visible for all the operational business sectors around the world. The textile industry of Turkey is considered the oldest and expanding business sector. This sector fulfils the demand of both the foreign exports and 83 million populations. As the global supply chain of clothing and textile got heavily affected, most of the workers in the Turkish textile industry lost their jobs in 2020. During the pandemic spending on clothes and luxury items is considered spending on non-essential goods. During 2020 money spending on clothing by Turkish people decreased to 3.5% on average (Demir Seker, Nas Ozen & Acar Erdogan, 2020). It was seen that an average person in Turkey used to spend 7.5% of their total spending on clothes.

15% of the total export made by Turkey in a year is associated with clothes and clothing products. During the initial months of 2020 Turkey exports clothes worth \$3 billion in different foreign countries. The country mostly exports its clothing products to European countries. At the mid of 2020 clothing exports made by Turkey were reduced from \$3 billion to \$1.8 billion. The textile industry of Turkey has faced an export reduction of 40% in the middle of 2020. The major textile companies based in Turkey faced a reduction of stock market value by 50% (Demir Seker, Nas Ozen & Acar Erdogan, 2020).

Istanbul is considered as the textile capital of Turkey that contributes around 31% of Turkey’s GDP. The majority of Covid-19 cases (around 60%) took place in Istanbul. The city accounts for 68% of the textile companies in Turkey. 16% of the textile industry workers come from Istanbul. Due to the epicenter of Covid-19 cases, textile companies in the other parts of Turkey faced a shortage of workforce. Due to the impact of the pandemic, it is estimated that the CAGR of Turkey’s textile industry will be less than 1% till 2026 (Demir Seker, Nas Ozen & Acar Erdogan, 2020).

Conceptual Framework

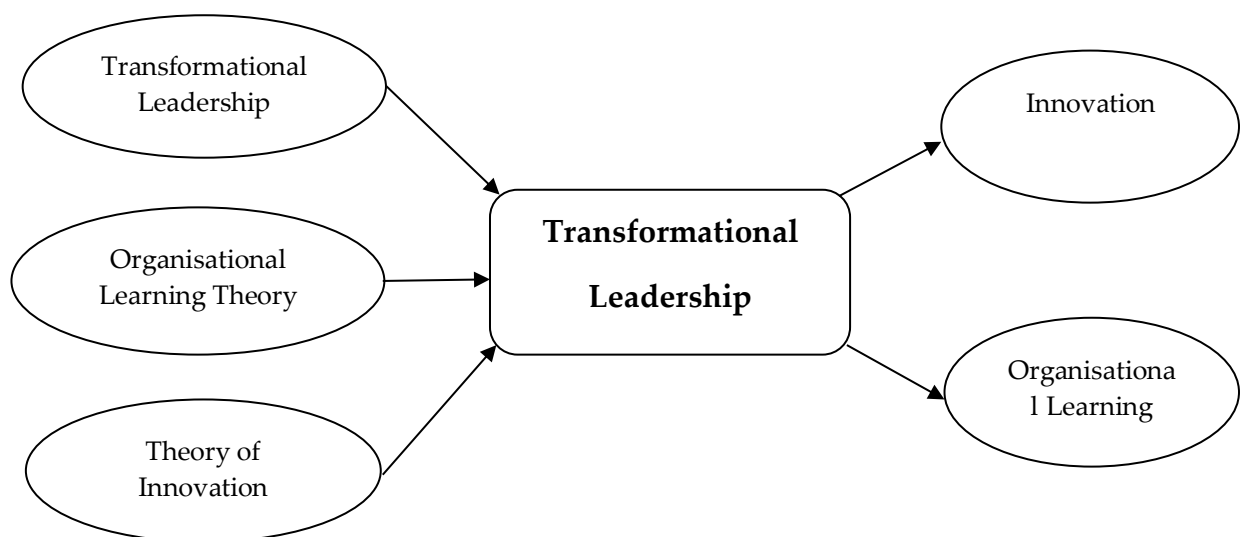


Figure 1: Conceptual Framework

The literature reviewed in this section has critical consideration of the aspects associated with transformational leadership. The literature did not evaluate the impact of transformational leadership on innovation as well as organisational learning during the Covid-19 pandemic. The study focuses on the way transformational leadership can enhance the innovation process as well as organisational learning in order to deal with the issues generated from the Covid-19 pandemic.

3. Method

This section of the research focuses on the adopted methodology during the study. Four major aspects have been considered to discuss the adopted methodology. The first one is a research model that refers to research philosophy, design, and approach. The second thing to discuss in this study is the sample for the study. The third area of discussion in this section is the tool for collecting information and the last section addresses the analysis of collected information.

3.1. Research Model

The research aims to identify the impact of transformational leadership on innovation and organisational learning. The objective reality on which the research is focusing is transformational leadership. The data used in this research is quantitative in nature and the researcher adopted a structural approach to do the research. Based on the objective and nature of objective reality the most suitable philosophy for the research is positivism philosophy. As mentioned by Źukauskas, Vveinhardt, and Andriukaitienė (2018), positivism philosophy allows the researcher to take a structural and controlled approach for hypothesis construction and adopting a suitable methodology. The objective reality that this research philosophy focuses on is single and has a direct association with the real world. This philosophical approach of research tends to generalise the research context and the thought of the research is driven by theories and hypotheses. The research approach considered by positivism philosophy is more consistent and logical. Positivism philosophy considered satirical analysis as a predominant method for finding the answers to research questions.

The design considered for this research was descriptive. The reason behind selecting descriptive design is the systematic description of a phenomenon as well as a population. As the research has multiple variables such as transformational leadership, innovation, job satisfaction, knowledge sharing, and organisational learning, descriptive design is suitable in this case. The research mainly focused on quantitative data to get the answers to research questions. As mentioned by Rutberg and Bouikidis (2018) descriptive design allows researchers to do survey methods for collecting quantitative information. This specific research design helps to gauge public perception of a phenomenon and event. The aim of this study is to understand the role of transformational leadership in organisational learning during Covid-19. This design was beneficial to get an idea about employee satisfaction under transformational leadership.

The approach for the research was deductive. Deductive research approach is suitable to test the hypothesis by using numerical information. As mentioned by Queirós, Faria and Almeida (2017), the formulation of hypotheses can be done by adopting a deductive research approach. The research initiated by formulating hypotheses and quantitative data was collected to test whether the empirical evidence is efficient enough to support the hypothesis or not. The collection of quantitative data was done in experimental settings. Disman, Ali and Barliana (2017) mentioned that in an experimental setting researchers can compare, calculate and measure the variables. The reason behind selecting experimental setting is not to understand whether the transformational leadership is effective enough for innovation and organisational learning during the Covid-19 pandemic. Understanding the relationship of two variables by changing the degree of one variable can be done in an experimental setting. Deductive research approach and experimental setting help to analyse statistical data to find the dependency between two variables.

3.2. Universe and Sample

The sample size is a significant factor for quantitative research. The population selected for the research was 1000 employees from the textile sector in the UK. The method for selecting the population is the random sampling method. As mentioned by Iliyasu and Etikan (2021), the random sampling method is beneficial for eliminating any population bias and representing the true character of selected populations. The research was done by considering quantitative data. Random sampling method in the sense of collecting quantitative data is highly efficient to address lower risk carried by the numerical data. The researcher tends to look for the impact of transformational leadership on innovation and organisational learning in the Textile sector. The adaptation of this sampling method made the researcher apply the finding to the total population of this selected sector.

The sample size for the research is over 300. The consideration of a larger sample size is important for measuring accurate means value. Lower sample size in research increases the effect size. As mentioned by

Rutberg and Bouikidis (2018), the probability of undermining the external and internal validity of the research is higher in lower sample size. This is the reason the researcher selected more than 300 samples for the study.

3.3. Data Collection Tools

An application was made for the permission of the Ethics Committee regarding the study and it was stated that there was no objection in terms of ethics in the field study with the decision of the Ethics Committee of Pamukkale University Rectorate, dated 22.09.2021 and numbered 68282350/22021/G017. The selection of an appropriate data collection tool is important in research because it ensures the way to collect information and explain the character of research samples. As mentioned by Zhang *et al.* (2017) the analytical approach of research is highly dependent on the data collection method. The proper use of data collection tools helps in order to get the answers to research problems. It is also beneficial for evaluating research outcomes as well as testing research hypotheses. The adopted data collected tool in the research needs to measure the general states of the research context and should not be limited to any specific events or cases.

The research was based on quantitative data that is collected by using the survey method on over 300 samples. The use of the survey method is useful to collect comprehensive information from the target population or sample. The larger sample size ensures the validity of the information collected by doing the survey method. As the Covid-19 pandemic is still going on, online platforms are used to do the survey. The data was collected by developing a questionnaire in google form. 17 questions are there in the questionnaire and all the questions are relevant for the research purpose. The link to fill the questionnaire was provided to the samples by using social media platforms and email. The data collection method used in this study is reliable enough to draw proper conclusions from the study and find the answers to research questions.

There are mostly three reasons behind selecting the online survey method as a suitable data collection tool. The first reason is the cost-effectiveness of the online survey method. Google form is free for use and it is user-friendly. The second reason is it helps to reach more samples as most of the people use social media and other online communication platforms (Zhang *et al.* 2017). The third reason is the lack of chance to do face-to-face interactions during the Covid-19 pandemic. The data gathering is more convenient in the survey method and representativeness is higher in the survey method. Survey method ensures more precise calculation and can be done remotely (Zhang *et al.* 2017).

3.4. Analysis of Data

The research has been done by considering only quantitative data collected from over 300 samples by using the survey method. Three statistical methods were considered for doing the analysis in this research. The methods are Regression, Descriptive Statistics, and Inferential Statistics. The software used for the statistical analysis during the study is Microsoft excel. All three statistical methods were done by using this software. The software is effective to process the raw data in readable format (Lavery and Kelly, 2019).

The Regression was done in this case to predict the continuous dependent variable from the selected independent variables in the study. The independent variables used in this study were continuous. According to Ong and Puteh (2017), continuous independent variables are those variables that take any of the values between its maximum values and minimum value. The independent variable for the study is transformational leadership and the dependent variables are innovation, job satisfaction, organisational learning and knowledge sharing. The multiple R value 1 refers to a strong positive relationship between the variables whereas -1 refers to a strong negative relationship. The R square value in the regression refers to the explanation of dependent variables by independent variables (Ong and Puteh, 2017).

The survey form was developed for doing a quantitative study. According to Ong & Puteh (2017), quantitative study is a way to research by adopting the data collection process and analysis for numerical information. The likert scale was used in the survey form. As Microsoft Excel software was used in this study all the text in the survey responses were converted into numbers. Before the analysis, every response was a change in number in Excel sheets. The collection of number data helps in the generalization of a phenomenon across a population or samples. Both descriptive and inferential statistics were used in the quantitative study. The reason behind doing a quantitative study is to develop a cause-effect relationship between the variables considered in the study. The survey form was made by focusing on object-oriented questions that relate to the research objectives.

The philosophical stance for the research to understand transformational leadership impact on the innovation and organisational learning is positivism philosophy. The study was done by collecting quantitative data. Deductive approach was selected to test the hypothesis by analysing collected information statistically. The design of the research was descriptive in nature. Among 1000 populations over 300 samples were selected for the research. A survey method was used by the researcher on 300 samples for collecting quantitative information. The selection of samples during the research was done by using a random sampling method. Microsoft excel software was used for the statistical analysis. Regression, descriptive statistics and inferential statistical analysis were done in this research.

4. Findings

4.1. Research Problems and Potential Solutions

The research is focusing on the effect of transformational leadership on innovation as well as organisational learning during the Covid-19 pandemic. The problems that the research is focusing on are issues like growth and value reduction, innovation, the gap in supply-chain, and employee engagement during the Covid-19 pandemic. It was found from the literature review that the global textile sector has faced a huge gap in the supply chain during this time. The term supply chain is not only considering import and export of raw materials but also considering the supply of readymade products. The global trade value of the textile industry due to Covid-19 was reduced by 3% (unctad.org, 2021).

81% of the textile companies shifted their focus to source local products. The change in the supply chain enhanced the requirement of innovation in the textile manufacturing process. Eliyana and Ma'arif (2019) said that any sort of the change in an organisation needs proper leadership to facilitate all the requirements. During the Covid-19 period, 40% of the textile businesses shifted their market from international to domestic dimensions. The change was not only associated with the production but also related to the market size and dimensions. As mentioned by Li *et al.* (2019), transformational leadership helps employees to engage more with the work and increases innovative behaviour. The change in leadership approach towards transformational leadership can be a potential solution to deal with the issues that arose due to the covid-19 pandemic.

The research has answered the solution of the innovation crisis in an organisation by adopting a potential leadership approach. According to Ojha, Acharya and Cooper (2018), organisational learning is gaining knowledge regarding the change in market and environment as well as environment. Due to Covid-19 customer tendencies of shopping got changed exponentially. It is highly required to address the change and manage human resources to increase organisational efficiency. Knowledge sharing among the employees to facilitate any operation in an organisation is also considered as a potential solution of crisis management during Covid-19. The purpose of innovation during this time is only to increase company efficiency but also portrays the increase in company revenue.

The research considered the issue like limited workforce during Covid-19 and the dealing with challenges due to Covid-19. As stated by Top, Abdullah and Faraj (2020), transformational leadership helps to manage workforce shortage by making employee motivation higher. It is used as a solution to deal with limited workforce problems.

Another problem that the research is trying to find the solution to is the way for enhancing employee performance and work engagement by transformational leadership. According to Top, Abdullah and Faraj (2020), leadership is not only managing a team or finding solutions to any problem faced by the team member but also looking for engaging employees and motivating them to work. The study addresses the impact of employee freedom for decision-making on job satisfaction and overall performance. During Covid-19 the management of organisational operation with a limited workforce is a difficult task to perform. The way transformational leadership manages this workforce and overall operation could be a potential solution to deal with organisational difficulties.

4.2. Findings and Results

Table 1: Regression Statistics between Question 4 and Question 5

| SUMMARY OUTPUT | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|
| <i>Regression Statistics</i> | | | | |
| Multiple R | 0.261542955 | | | |
| R Square | 0.068404717 | | | |
| Adjusted R Square | 0.065289014 | | | |
| Standard Error | 1.11808374 | | | |
| Observations | 301 | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> |
| Intercept | 1.764721307 | 0.171282019 | 10.30301559 | 1.67705E-21 |
| X Variable 1 | 0.39335481 | 0.083949765 | 4.685597509 | 4.24481E-06 |

Considering free decision-making and job satisfaction as two variables, the multiple R value is 0.2. The multiple R-value greater than 0 refers to the fact that job satisfaction of employees has a strong positive relationship with free decision-making. The standard error calculated between these two variables is 1.1 which means that most of the responses made by the samples lie near the regression line. Transformational leadership quality does affect employee satisfaction in the workplace. The positive relationship between job satisfaction and employees' freedom of making decisions based on their requirements and situation refers to the requirement of transformational leadership in the workplace.

Table 2: T-test Between Question 4 and Question 5

| | Question 4 | Question 5 |
|------------------------------|--------------|-------------|
| Mean | 1.890365449 | 2.508305648 |
| Variance | 0.591273533 | 1.337430786 |
| Observations | 301 | 301 |
| Pearson Correlation | 0.261542955 | |
| Hypothesized Mean Difference | 0 | |
| df | 300 | |
| t Stat | -8.861899953 | |
| P(T<=t) one-tail | 3.55436E-17 | |
| t Critical one-tail | 1.649948674 | |
| P(T<=t) two-tail | 7.10872E-17 | |
| t Critical two-tail | 1.967902947 | |

The Pearson correlation between variables free decision-making and job satisfaction of employees is 0.26 which is higher than 0. It is referring that employees' job satisfaction is highly related to free decision-making. However, the t Stat value is referring to the fact that despite having a strong positive relationship, employees' satisfaction in their job has no dependency on free decision making allowance.

Table 3: Regression Statistics between Question 6 and Question 8

| SUMMARY OUTPUT | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|
| <i>Regression Statistics</i> | | | | |
| Multiple R | 0.190908364 | | | |
| R Square | 0.036446004 | | | |
| Adjusted R Square | 0.033223415 | | | |
| Standard Error | 0.794978856 | | | |
| Observations | 301 | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> |
| Intercept | 1.418588853 | 0.101788149 | 13.93667994 | 2.32124E-34 |
| X Variable 1 | 0.127430409 | 0.037892264 | 3.362966355 | 0.000871505 |

The independent variable to understand the impact of transformational leadership on work performance and innovation was employee perception of transformational leadership on workability enhancement. The dependent variable in that case was leaders' allowance to take innovation steps by employees. The multiple R value obtained by doing regression analysis is 0.19 which is between 0 and 1. That refers to the strong positive relationship between transformational leadership and organisational innovation. It is also referring that employees' freedom to take innovative steps while countering any difficult or diverse situation enhances employees' work performances. The P-value for the regression of these two variables is 0.0008. The P-value is lesser than 0.05 which is referring to the relationship between transformational leadership in work performance enhancement and innovation statistically significant. The significant P-value rejects the null hypothesis and supports the alternative hypothesis which states that transformational leadership allows the workforce to manage crises in innovative ways.

Table 4: T-test Between Question 6 and Question 8

| | Q. 6 | Q. 8 |
|------------------------------|-------------|-------------|
| Mean | 2.398671096 | 1.724252492 |
| Variance | 1.467198228 | 0.653709856 |
| Observations | 301 | 301 |
| Pearson Correlation | 0.190908364 | |
| Hypothesized Mean Difference | 0 | |
| df | 300 | |
| t Stat | 8.85256712 | |
| P(T<=t) one-tail | 3.79814E-17 | |
| t Critical one-tail | 1.649948674 | |
| P(T<=t) two-tail | 7.59629E-17 | |
| t Critical two-tail | 1.967902947 | |

It can be said that the leadership approach taken by the leaders and managers has a significant impact on the innovative behaviour of employees in an organisation. It also allows the organisation to deal with different issues in new productive ways. As mentioned by Alrowwad and Abualoush (2020), the use of employees' intellectual capital gets enhanced due to transformational leadership. The Pearson correlation between transformational leadership impact on work performance and taking innovative steps in the workplace is 0.19 which is referring to the strong positive relationship between the variables. The t Stat value is positive, which is referring to the fact that taking innovative steps in the workplace is highly dependent on transformational leadership. The lower standard error of the responses shows that most of the responses are close to the mean value.

Table 5: Regression Statistics between Question 16 and Question 17

| SUMMARY OUTPUT | | | | |
|-----------------------|--------------|----------------|--------------|-------------|
| Regression Statistics | | | | |
| Multiple R | | | | 0.054748125 |
| R Square | | | | 0.002997357 |
| Adjusted R Square | | | | -0.0003371 |
| Standard Error | | | | 1.174583088 |
| Observations | | | | 301 |
| | Coefficients | Standard Error | t Stat | P-value |
| Intercept | 3.22053035 | 0.156857263 | 20.53159857 | 4.69354E-59 |
| X Variable 1 | -0.080277605 | 0.084671591 | -0.948105551 | 0.343841362 |

The two variables selected in that case are leaders' acceptance of employees' suggestions and job satisfaction. The dependency and relationship between these two variables are examined by doing regression analysis. It was identified that the M square value of these two variables is 0.05 which is positive. Deriving the M square value it can be said that job satisfaction has a strong positive relationship with leaders' acceptance of team members' suggestions. Afriyie, Du and Musah (2019) stated that transformational leadership has a moderating

effect on the innovation by employees and job satisfaction. The authors further mentioned that this approach of leadership also influences work engagement.

Table 6: T-test Between Question 16 and Question 17

| | Q. 16 | Q. 17 |
|------------------------------|--------------|-------------|
| Mean | 1.671096346 | 3.086378738 |
| Variance | 0.641461794 | 1.379180509 |
| Observations | 301 | 301 |
| Pearson Correlation | -0.054748125 | |
| Hypothesized Mean Difference | 0 | |
| df | 300 | |
| t Stat | -16.84948714 | |
| P(T<=t) one-tail | 1.36113E-45 | |
| t Critical one-tail | 1.649948674 | |
| P(T<=t) two-tail | 2.72226E-45 | |
| t Critical two-tail | 1.967902947 | |

The Pearson correlation of these two variables has come out negative by doing t-test. The Pearson correlation is suggesting that these two variables have no such significant relationship between them. The P-value has come out 0.34 which is higher than 0.05. That is referencing poor significance between these two variables. The t-Stat value that came out, in this case, is negative, also referring to no dependency between two variables.

Table 7: Regression Statistics between Question 14 and Question 15

| SUMMARY OUTPUT | | | | |
|-----------------------|--------------|----------------|-------------|-------------|
| Regression Statistics | | | | |
| Multiple R | | | | 0.208672539 |
| R Square | | | | 0.043544229 |
| Adjusted R Square | | | | 0.04034538 |
| Standard Error | | | | 0.740537186 |
| Observations | | | | 301 |
| | Coefficients | Standard Error | t Stat | P-value |
| Intercept | 1.334143082 | 0.098369135 | 13.5626188 | 5.51089E-33 |
| X Variable 1 | 0.125060905 | 0.033896364 | 3.689507934 | 0.000266891 |

Covid-19 affected almost every operational business sector. The relationship and dependency between leadership issue and limited workforce management were measured in this study. It was found that 51.2% of the respondents face leadership issues during the Covid-19 pandemic. 31.2% of samples agreed that their managers were able to handle a limited workforce to keep the business operational during the pandemic situation. The multiple R-value that came out, in this case, is 0.2 which is showing the strong positive relationship between leadership issues and limited workforce management during the Covid-19 pandemic. The P-value calculated in this case is 0.0002 which is much lower than 0.05 that makes the relationship between leadership issue and limited workforce management during Covid-19 statistically significant.

Table 8: t-test between Question 14 and Question 15

| | Q. 14 | Q. 15 |
|------------------------------|--------------|-------------|
| Mean | 1.661129568 | 2.61461794 |
| Variance | 0.57145072 | 1.590985604 |
| Observations | 301 | 301 |
| Pearson Correlation | 0.208672539 | |
| Hypothesized Mean Difference | 0 | |
| df | 300 | |
| t Stat | -12.45341023 | |
| P(T<=t) one-tail | 2.79879E-29 | |
| t Critical one-tail | 1.649948674 | |
| P(T<=t) two-tail | 5.59758E-29 | |
| t Critical two-tail | 1.967902947 | |

The Pearson correlation between leadership issue and limited workforce management is 0.2. The Pearson correlation is also showing the strong positive relationship between the variables. The t-Stat value, in this case, came out negative which is defining that leadership issues during the Covid-19 pandemic are not dependent on a leader's capability to manage limited workforce.

4.3. Research Result Analysis

The research aims to understand the way transformational leadership impacts innovation and organizational learning during the Covid-19 pandemic. As mentioned by Al Ahmad, Easa and Mostapha (2019), transformational leadership tends to provide employees freedom for making decisions based on their perception. The author further mentioned that it is important to understand the relationship between employees' freedom of decision-making and their satisfaction in the workplace. The first regression was done by considering free decision-making of employees as independent variables and job satisfaction as dependent variables. 301 samples were selected randomly for the study around which 35.5% of the employees stated that they are allowed to make decisions in the workplace. 39.9% of the employees responded that they are not allowed for decision-making in the workplace. Considering the variable job satisfaction it was found that only 33.2% of the samples agreed that they are satisfied with their managers' leadership approach.

The understanding of employee performance due to the transformational leadership approach was examined by considering leaders' allowance to the employee for taking innovation steps while dealing with an issue. As mentioned by Al-Husseini, El Beltagi and Moizer (2019), the approach of transformational leadership is beneficial for system innovation across multiple industries around the world. Al-Husseini, El Beltagi and Moizer (2019) focused on knowledge sharing between leader and employee is the major factor behind the employees' capabilities for taking innovative steps in different situations. 34.2% of the samples responded that their leaders actually help them to gain the knowledge associated with their job roles. The majority of the participants (50.2%) stated that they are allowed to make any innovative steps while dealing with a difficult situation. 34.2% of the samples agreed that the impact of transformational leadership can be seen in terms of enhancing employee work performances.

Most of the employees (53.8%) participating in the survey responded that the work engagement of an individual is highly dependent on leaders' acceptance of team members suggestions. Ardi *et al.* (2020) mentioned that transformational leadership allows an individual to express his or her suggestion in front of the leader. It enhances the value orientation of each employee which results in enhanced work engagement. The study has tried to examine the dependency between Leaders' openness towards team members' suggestions and the job satisfaction of the employees. Most of the employees around 31.2% are satisfied with their present job whereas 10.3% of the samples are highly satisfied with their jobs.

The collection of data for the research was done on employees in the textile industry. The result shows that the textile sector leader's openness towards tea member's suggestions does not influence job satisfaction. However, Yang and Yang (2019) mentioned that leadership has a high influence on job satisfaction. The authors further mentioned that employees feel more engaged with the work when leaders tend to accept their suggestions in workplace operations. A contrasting result can be seen in the study findings to the findings of previous research.

Observing the responses of over 300 participants from the textile industry, it can be said that the leadership approach has a significant impact on both organisational learning and innovation. It was found that job satisfaction of employees in the textile industry is highly related to the allowance of making decisions by the employees without the intervention of leaders. The null hypothesis got rejected by the findings of the research. The alternative hypothesis that refers to the allowance of crisis management in innovative ways by transformational leadership was provided in this study.

It was identified that leaders play a key role to make innovative steps in the workplace by employees. The alternative hypothesis which refers to the transformational leadership impact on organizational learning was proved by the study. It was identified that most of the case leaders play the key role to gain knowledge regarding different job roles of employees. It was found that leaders influence the work engagement of employees but do not influence job satisfaction in the textile industry. Further in the study, it was found that

leadership has a significant impact on the management of a limited workforce during the Covid-19 pandemic. Most of the employees faced leadership issues during this time.

5. Conclusion and Discussions

5.1. Achieved Result Based on Findings

The findings of the research are that transformational leadership allow employees to make decisions free from any intervention of higher authority. Employees' freedom to make decisions results in enhanced job satisfaction and work efficiency. The major impact of transformational leadership in a workplace is the enhancement of work performance. The increasing work performance of employees is associated with innovation and learning regarding specific job roles. Transformational leadership approach allows the workforce to take steps that are innovative and different from the traditional approach of problem-solving (Khan and Ismail, 2017). The study has found that during the Covid-19 pandemic most of the employees in the textile industry faced problems regarding leadership. During this time the major challenge that a leader faced was managing a limited workforce. The finding of the study is leaders allowance to take innovative steps and make employees gain knowledge regarding job roles helps in facing challenges arose by Covid-19.

5.2. Description of Research Problem

There are two problems that were identified in the study. The first problem is the need for innovation to deal with the difficulties that arose due to Covid-19. The second problem is the enhancement of organisational learning during the Covid-19 pandemic. It was seen that due to Covid-19 the scarcity of workforce increased in almost every business sector. The study focuses on the use of transformational leadership to manage the difficulties an organisation is facing due to the Covid-19 pandemic. The management of a limited workforce and making employees engaged with the work by motivating themselves and increasing their interest were considered as two key aspects of transformational leadership in this case.

5.3. Discussion on the Similarities and Dissimilarities between Research Result and Literature Review

The findings of the research have some similarities as well as dissimilarities with the literature reviewed previously. Bowers, Hall and Srinivasan (2017) stated that crisis management in an organisation is one of the key tasks of a leader. A leader needs to take suggestions from team members about the solution to an issue (Kim and Park, 2020). The study has found that transformational leadership allow employees to take innovative ways for solving issues during crises. Nam and Park (2019) mentioned that employees need to engage in organisational learning for dealing with diverse situations. The study found transformational leader provides space for knowledge sharing and organisational learning that results in innovation.

The major dissimilarity that was found between the study and literature review is no significant relationship between leaders' openness towards employees' suggestions and job satisfaction. Vashdi, Levitats and Grimland (2019) stated that employees in a workplace get more satisfied if the leader or manager allows them to share their perceptions and suggestions. It also results in better work performance and work engagement. Job satisfaction may not depend on leadership but leadership has a strong influence on the job satisfaction.

5.4. Answering Research Questions Based on Finding

The first question that the research has asked is the way transformational leadership influences organisational learning. The first thing that transformational leaders do is motivate employees in the workplace. Employee motivation enhances work engagement. The increasing engagement with the work directly relates to the employee contribution in the workplace. The basic requirement of contributing to a workplace operation is learning. This is the way transformational leaders influence organisational learning and enhance innovation in a workplace.

The second question on which the study focuses is the way transformational leadership enhances workplace innovation. The research finding is that transformational leadership allows employees to make decisions on their own. Employees make decisions based on their perception and analysis of a situation. It results in innovative ways and process innovation in a workplace to deal with a situation.

The third question of the research is focusing on the enhancement of employee performance due to transformational leadership. The study found that transformational leadership is related to job satisfaction

and employee engagement. As mentioned by Van, Phong and Loan, (2018) employee engagement in the workplace tends to improve overall performances. The innovative ways to deal with a situation or business operation help in the increase of employee performances.

5.5. Conclusion from Findings

The study aims to understand the effect of transformational leadership on organisational learning and innovation during the Covid-19 pandemic. The impact of this specific leadership approach on learning and innovation was addressed by considering other factors like job satisfaction, work performance enhancement and work engagement. It was seen that transformational leadership allows the employees to make decisions based on their perceptions. Decisions based on individual perception result in innovative ways of solving a common issue (Alrowwad and Abualoush, 2020).

The study did not find any dependency between leadership issues and managing a limited workforce during the Covid-19 pandemic but it found a strong positive relationship between these two variables. The study has made it clear that organisational learning is one of the major factors for innovation. However, both organisational learning and innovation are dependent on the transformational leadership in the textile sector. As Covid-19 is a sudden incident that has a huge impact on every business sector it became important to deal with situations in an innovative way rather than concentrating on traditional methods.

5.6. Next Step After the Research

The research found out the role of transformational leadership in innovation and organisational learning during the Covid-19 pandemic. The research did not focus on the drawbacks of transformational leadership in crisis management. There is a scope to examine the impact of transformational leadership to revive a business after covid-19 impact in the business sector. This study focuses on innovation as a whole besides considering only process innovation or product innovation. Future research in this area can consider the role of organisational learning to enhance the innovative behaviour of employees during crisis or business difficulties. The impact of other leadership approaches on business can also be an area for further research.

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