CHALLENGES AND PRACTICES OF TRANSFORMATIONAL LEADERSHIP & INNOVATION MANAGEMENT

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ABSTRACT

The research project on "Challenges and Practices of Transformational Leadership & Innovation Management" aims to study the importance of transformational leadership and innovation management in the context of IT Product Management. The aim is to study transformational leadership and innovation management practices in IT companies and the challenges they face in the implementation. The study also attempts to identify the gaps in the transformational leadership and innovation management and suggest the companies on ways to improve the processes. A combination of primary and secondary data was used in this study. Different studies on the topic have been reviewed as a part of secondary data and a closed ended questionnaire is prepared to collect primary data. Collected data is graphically represented and analyzed using percentage analysis and Pearson Correlation Analysis. The study observed that that the motivation provided by the leaders has a significant impact on the innovative and creative attitude, and that transformational leaders should have a strong sense of vision and mission in pursuit of organizational goals. Both transformational leadership and innovation management play key role in the successful development of IT Products and the percentage analysis depicts that there is a strong relationship between Transformational Leadership & Innovation Management in implementation of the IT product management.

Keywords: Transformational Leadership, Management, Innovation, Challenges, Practices, Product Management

1.0 INTRODUCTION

Even though the Information Technology sector has been booming for the last two decades, there have been significant changes in the sector in last couple of years. Covid 19 has had a drastic impact on the functioning of the sector compared to other sectors. Even now, most of the people are still working from homes. IT companies have more or less transformed and adopted the new working style and bringing up innovative technologies to cope up with the changing work culture.

The changing work culture has brought up many challenges to the leadership of the IT companies. Right from hiring of the employees to delivering the products to the end customers, there have been radical changes in the industry. Virtual Project Management has become the need of the hour. Changing requirements have also paved way for new innovations to adapt to the emerging requirements. Managing the transformation and innovation have become the highest priorities for the leadership and for the management of the companies. Transformational leadership & Innovation management are closely related when it comes to the implementation and delivery of IT Products.

2.0 PURPOSE AND OBJECTIVES

Below are the purpose and objectives of the research study.

2.1 Purpose of the Study

The study is intended to identify the practices of transformational leadership and innovation management in implementation of IT products and describe challenges faced during implementation of IT products in its practices of transformational leadership and innovation management. Additionally, the study makes efforts to identify the gaps that exist in the transformational leadership practices. Also test the relation between the independent variables, i.e., transformational leadership, innovation management and the dependent variable IT product management.

2.2 Objectives of the Study

The objectives of the study are to investigate the transformation challenges and innovation challenges in IT industry. Hence, the goals are to:

1. Identify the practices of transformational leadership and innovation management in implementation of IT products
2. Identify and describe challenges faced during implementation of IT products in its practices of transformational leadership and innovation management
3. Identify and describe gaps that exists in the practice of transformational leadership and innovation management in implementation of IT products
4. Propose strategies to deal with gaps in practices of transformational leadership and innovation management in implementation of IT products

3.0 LITERATURE REVIEW

There have been many studies on the transformational leadership and innovation management. Following are some of the observations from the research carried out on the concepts. Important inferences and suggestions have been collected to understand the concepts, challenges and the ways to successfully manage the processes.

Leadership plays key role in the success of any organization. Leadership as a term is relevant in many organizations (Buil, Martinez & Matute, 2019) and it emphasizes on understanding, forecasting and

influencing personal and interpersonal dynamic of how people are influenced by one another by sharing common goals.

The present study aims to research both transformational leadership & innovation management combined together with special reference to Information Technology (IT) products, as both the concepts are closely related and go hand in hand especially in IT companies. The study aims to identify the different challenges in innovation management and also the obstacles faced by the transformational leaders. The study aims to come up with suggestions to improvise the innovation management and transformational leadership in companies delivering IT products.

3.1 Transformational Leadership

According to Cherry (2020), Transformational Leaders have a clear vision on the strategic objectives of the company and they lead the team from the front. These leaders encourage the team to explore and implement innovative ideas for the betterment of the projects. They offer full support and encouragement to the subordinates in reaching the organizational goals. To sum up, these leaders be of a service as a role model for the team.

A transformational leader inspires and helps their followers by inspiring them with imperative vision, offering individual support, and empowering them. This leadership also encompasses higher levels of inspiration, trust, unity and commitment. Literature shows that the strategically driven dimension of transformational workforce benefits the organization with improved employee performance, engagement and satisfaction (Boehm, Dwertmann, Bruch & Shamir, 2015; Ng, 2017).

Transformational leadership has a very important role to play in improving interactions and relationships for a better organizational performance. According to Sayyadi (2020), a Transformational Leader motivates the employees not to just meet the expectations, but to exceed them. The leadership focuses on setting extreme targets to the employees and motivating them to further identify relevant opportunities related to the project. These features of a transformational leader help him/her to get respected and admired by everyone in the project.

3.2 Transformational Leadership in IT Industry

Business Organizations in general and IT companies in particular today are at a juncture of heavy competition and uncertainty. Some of the challenges management face includes, aligning the individual interests of employees with the organizational interests, and motivating them to come up with new ideas for improving the business processes. In these circumstances, in spite of having its own limitations, transformational leadership is more effective compared to the other leadership styles (Sayyadi, 2020).

Transformational leadership can back fire when the leader is selfish or does not have moral values. Over enthusiasm in getting extraordinary results can lead to taking wrong decisions and employee burnout. The type of leadership also fails when the management and employees are not of the same view. Overlooking the facts and one way communication from the leaders to employees are also some of the challenges that the businesses are likely to face (Miller, 2022).

The present business environment is surrounded by high level of uncertainty, political disturbances, and unpredictability. These factors can be effectively handled by transformational leadership. The employees under the transformational leaders have a very good job satisfaction and show commitment towards the growth of the company. IT Companies should find out ways to develop themselves by making efforts through the transformational leadership (Juneja, 2021).

3.3 Innovation Management

According to Rusett (2019), Innovation Management can be defined as the complete life cycle of coming up with an idea, collaborating, implementing and finally creation of value. A good idea can be successful only if it is implemented properly. Only two or three startups successfully manage to survive out of ten, explaining why innovation management is so important. Innovation management should be given the top most priority as it plays a key role in differentiating the company's products from the competition and gives a competitive edge over them.

Innovation Management Practices include the set of tools, techniques, and methodologies that are aimed at improving their relative position by adapting to the changing situations and facing the challenges effectively. Innovation Management also includes practices to promote creativity and entrepreneurial frame of mind among the employees, develop competitive strategies, improve the efficiency in the development of new products and develop the co-operative networking (Albors, Igartua-Lopez, and Peiró-Signes, 2018).

According to Tidd and Beasant (2018), the challenges in innovation include improving the existing process and operations, identifying new ways to serve the existing customers, identifying better opportunities, making new products and serving new markets, identifying the social needs, offering novelty in products and services that competition cannot offer, identifying the competitive factors, entering first into the markets.

IT Companies should identify the challenges in innovation management at an early stage. The challenges companies face in the innovation management process include the lack of motivation and empowerment among the employees. Lack of diversity and collaboration also hinder the innovation management process. Management also lacks interest on innovation when the current products are successful. Wrong assessment of key performance indicators is also an area of concern (Playford, 2016).

3.4 Transformational Leadership and Components

According to Trmal, Bustamam, & Mohamed (2015), Transformational Leadership is generally characterized by elevated levels of motivation and the morale among the other leaders and the followers. Transformational leadership is hence often identified by four components, comprising, *Inspirational motivation*, *Idealized influence*, *Individual consideration* and *Intellectual stimulation* (Northouse, 2016).

3.4.1 Inspirational Motivation

Transformational leaderships inspire the followers by ensuring the providence of meaning and challenging work, by communicating higher expectations to the group, with shared vision and optimism towards the future of the organization (Nhat, 2016).

3.4.2 Idealized Influence

Idealized Influence (Attribute) refers to leaders who have the potential and mastery to build in trust elements while idealized influence (behavior) refers to leaders who act with integrity (Nhat, 2016).

3.4.3 Individual Consideration

Transformational leaders involve themselves in paying a lot of attention to the individual needs of the followers for achievement and growth. They act as the mentors and coaches by recognizing the individuals' abilities, aspirations and strengths (Nhat, 2016).

3.4.4 Intellectual Stimulation

Transformational leaders stimulate innovation and creativity of the followers by empowering them to solve problems, questioning assumptions and approaching the situations with newer approaches with creative ideas (Nhat, 2016).

3.5 Transformational Leadership & Organizational Innovation

Organizational innovation, according to Woodman et al. (1993), is the development of worthwhile and practical new goods and services inside an organizational framework. Adopting a market-oriented strategy and enhancing this definition to incorporate the returns attributable to innovation is necessary because the majority of firms use inventive activity as a competitive weapon. Similarly, organizational innovation can be defined as the organization's propensity to create fresh, enhanced goods and services, as well as its success in bringing those goods and services to market. OECD (2004) defines a product innovation as one that satisfies an external customer need or is introduced in response to a market need, which is in line with Damanpour's (1991) definition of product innovation as "an externally demanded product or service introduced into the market successfully".

3.6 Transformational Leadership & Organizational Performance

Many studies have been carried out on the subject of Transformational Leadership. Leadership engages in a crucial role in the growth and performance of the company. According to Abu-Ruman (2018), the effectiveness of transformational leadership refers to the readiness of a business for crisis management. The level of exercising the dimensions of transformational leadership falls within the average, and also the management is recommended to adopt this leadership style.

Para-Gonzalez et. al., (2018) performed an investigation over the relationship between the organizational performance and style of transformational leadership. This study uncovered that the adaptation of transformational leadership styles would help the organizations improve performance with respect to learning, being creative and adopting innovative approach.

Northouse (2016) define transformational leadership theory as a basis for incorporating the theory into schools, that are crucial and having dynamic environments packed with competing the demands and goals set by the organization. Northouse (2016) states that the leaders who are able to influence and engage others are able to practice and implement transformational leadership theory.

3.7 Transformational Leadership & Organizational Culture

Transformational leadership has a strong positive influence on the empowerment of workplace and individuals within the workplace. This in turn increases employees' job satisfaction and decreases the frequency of adverse employee outcomes. Findings of Boamah et al. (2017) support that managers' use of transformational leadership behavior is useful in developing strategies and creating a great workplace environment.

The Big 5 personality traits that can directly affect a leader's performance effectiveness are linked to transformational leadership (Deinert et al., 2015). The development of transformational leadership

is positively related to the development of a good corporate culture. Meaning that, the leader must really be able to dive into the members of the organization and understand what they need to create an organizational environment that is able to prioritize the strengths of each member at every appropriate opportunity. If this approach fails, then whatever action taken by the transformational leaders does not make much of improvement with regard to the change in culture. Hence, openness to change can be achieved by better encouraging open communications within the organization (Yue et al, 2019) regardless of the model being used by the transformational leaders.

4.0 RESEARCH APPROACH

The present study was undertaken with the objectives of identifying the practices in the transformational leadership, innovation management and challenges involved in the implementation of the same in the IT Sector. In addition to this, the study also traces the gaps that exist in the day-to-day practices of transformation leadership and presents the strategies to deal with the gaps in the existing practices of transformational leadership and innovation management with regard to IT products in the IT Industry.

4.1 Area of Study

There are three types of Research Methods. They are Qualitative Research, Quantitative Research and Mixed Research.

Qualitative Research is the method of summarizing and interpreting the data that is collected through seminars, group discussions, interviews and open-ended questionnaires. The type of research carries out an in-depth study on what the employees think about a particular topic and also the reasons behind their thought process. The type of research is best suited for the understanding the complex subjects in detail.

Quantitative Research is the method of collecting numerical data and analyzing it with the help of statistical tools. Data is generally collected with the help of tools like a closed ended questionnaire or from secondary sources like newspapers, magazines and official records. The type of research is best suited for understanding the patterns or trends of a particular subject. The research focuses on facts and easy to collect even from a large number of respondents.

The mixed research uses a combination of both the above methods to do an exhaustive study on a particular topic. The present study employs conducting a mixed research study to assess the transformation practices in leadership, innovation management and the challenges associated with the same in the IT Industry. Employees from companies working in the IT Industry are selected for the purpose of the research study. The research paper ensures the coverage of employees from different disciplines to ensure data reliability and transparency in the findings.

4.2 Conceptual Framework

The present study strives to identify the practices of transformational leadership in the IT Sector. Additionally, the study makes an attempt to consider the standard four factors (also known as the "four I's") of transformational leadership that incorporates *inspirational motivation*, *idealized influence*, *individual consideration* and *intellectual stimulation* to further test how each element of transformational leadership is providing benefits to the IT product innovation management in IT companies (Trmal, Bustamam, & Mohamed, 2015).

The below presented conceptual framework is designed to identify if the organization's transformational leadership and the innovation management strategies are contributing to the IT

product management. The study also strives to understand the factors those are contributing to the improved product innovation management because of the transformational leadership strategies.

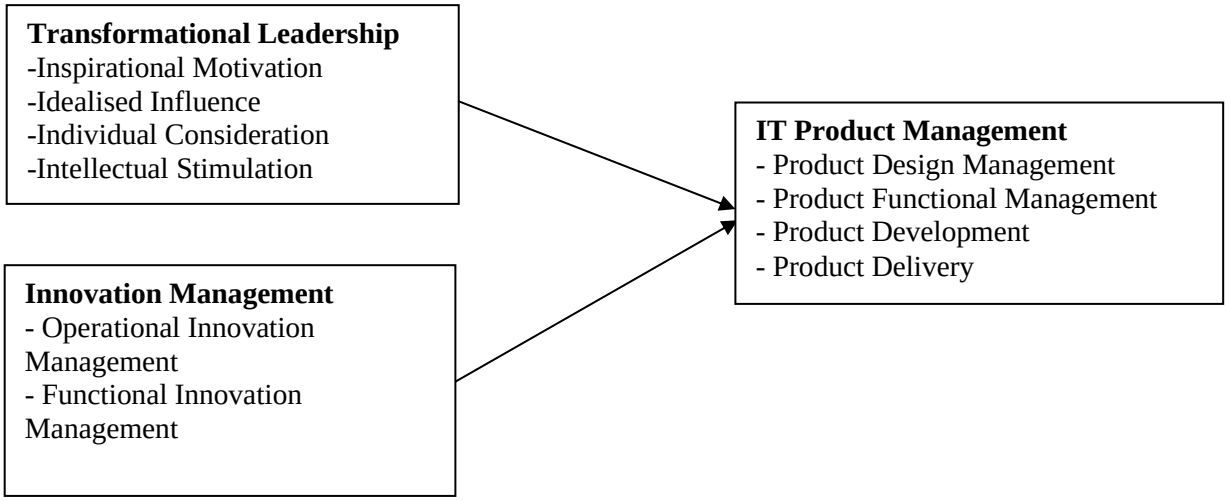


Fig 1: Conceptual framework of the research study

4.3 Research Methodology

Primary data are collected with the help of Survey Qualitative Research Method. Stratified sampling technique is employed to ensure data reliability. A structured questionnaire was framed and questions are circulated via Google Forms to the respondents. Secondary data involved the collection of data from the secondary sources such as research papers, journals, research articles and etc. The study aims to understand the view points and experiences associated with the employees.

4.4 Target Population

The target population of the present research study includes the employees working in the IT Companies. Employees working in the IT companies are selected, and the data collected is grouped and further analysis is performed. The target population ensures distribution of male and female employees selected from the IT department from the IT Companies.

4.5 Sample Size

The sample size comprises around 30 employees from different IT companies. The sample size comprises distribution of both men and women working in the IT Department.

4.6 Research Tools

The present research study employs the Survey and Questionnaire research tool for the purpose of primary data collection. A Google Forms Survey has been circulated across the employees of selected Organizations with the help of structured questionnaire. The structured questionnaire for the present study comprises of closed ended questions for the purpose of ease in the collection of data. Likert scale is used for the purpose of framing closed ended questions.

5.0 RESULTS AND FINDINGS

The results of Google Forms survey and interpretations are provided in this chapter. Feedback is taken from the employees of different IT companies working in managerial positions.

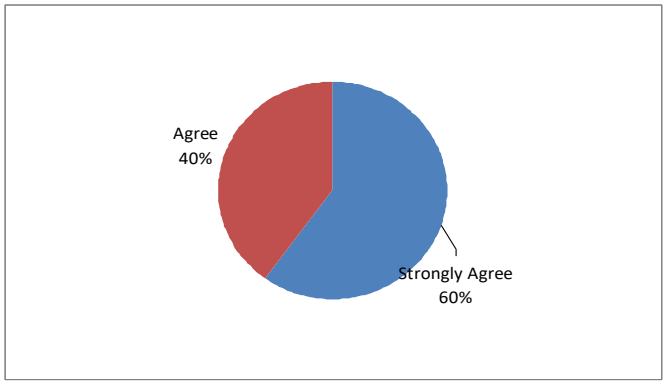
5.1 Survey Results

5.1.1 Transformational Leadership

Below is the summary and graphical representation of the survey results per each survey statement related to Transformational Leadership of the organization.

Survey Statement 1: Transformational Leadership has a strong influence on the empowerment of employees at workplace.

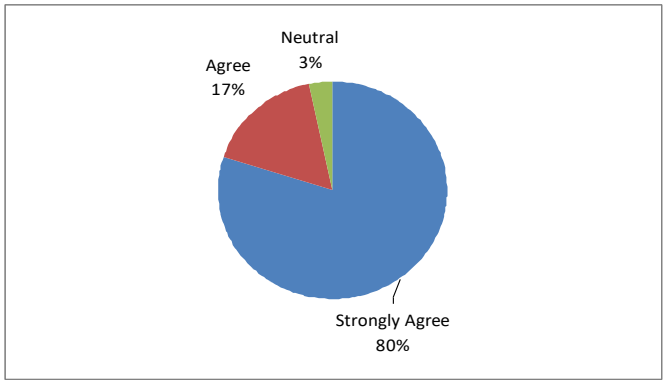
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	0	0.00%
4	Agree	12	40.00%
5	Strongly Agree	18	60.00%
Total		**30**	**100%**



60% of the employees strongly agree and 40% of the employees agree that Transformational Leadership has a strong influence on the empowerment of employees at workplace.

Survey Statement 2: Transformational Leaders encourage exploring and implementing innovative ideas in improving the product quality.

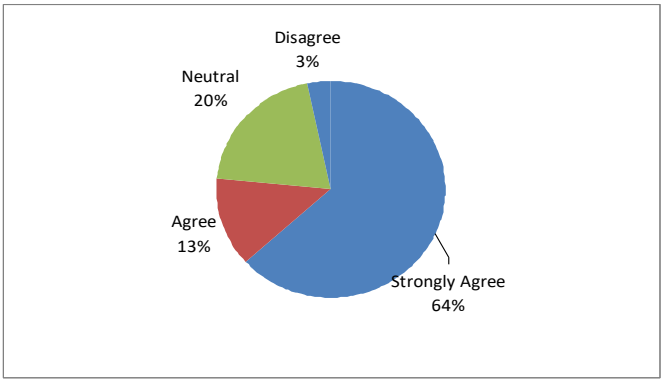
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	5	16.67%
5	Strongly Agree	24	80.00%
Total		**30**	**100%**



80% of the employees strongly agree and 17% of the employees agree that Transformational Leaders encourage to explore and implement innovative ideas in improving the product quality. 3% of the employees remained neutral.

Survey Statement 3: Opinions of employees are valued and ideas are considered by the Leaders.

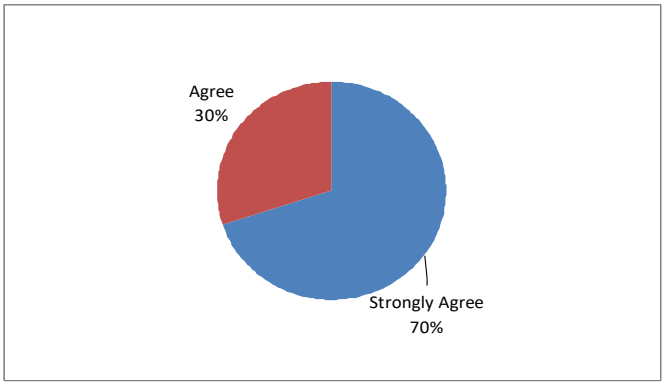
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	1	3.33%
3	Neutral	6	20.00%
4	Agree	4	13.33%
5	Strongly Agree	19	63.33%
Total		**30**	**100%**



63% of the employees strongly agree and 13% of the employees agree that Opinions of employees are valued and ideas are considered by the Leaders. 20% of the employees are neutral while 3% of the employees disagree with the statement.

Survey Statement 4: Transformational Leadership helps in the improvement of product innovation.

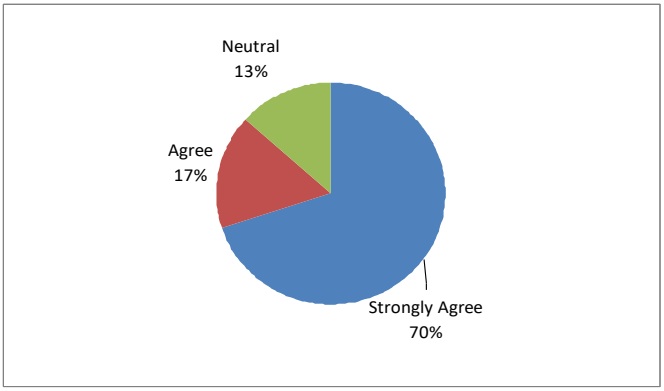
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	0	0.00%
4	Agree	9	30.00%
5	Strongly Agree	21	70.00%
Total		**30**	**100%**



70% of the employees strongly agree and 30% of the employees agree that Transformational Leadership helps in the improvement of product innovation.

Survey Statement 5: Transformational Leaders consider the differing opinions of employees in innovative problem solving.

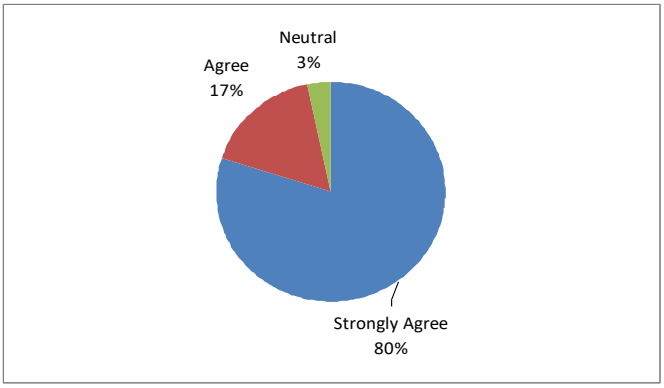
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	4	13.33%
4	Agree	5	16.67%
5	Strongly Agree	21	70.00%
Total		**30**	**100%**



70% of the employees strongly agree and 17% of the employees agree that Transformational Leaders consider the differing opinions of employees in innovative problem solving. 13% of the employees remained neutral with the statement.

Survey Statement 6: Transformational Leadership attitude and behavior improves the employee innovative productivity.

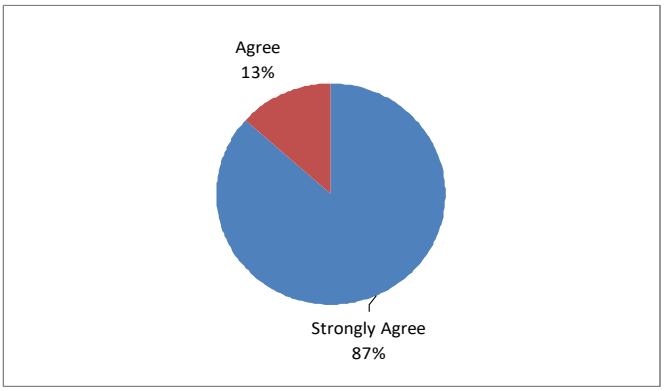
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	5	16.67%
5	Strongly Agree	24	80.00%
Total		**30**	**100%**



80% of the employees strongly agree and 17% of the employees agree that opinions of employees are Transformational Leadership attitude and behavior improves the employee innovative productivity. 3% of the employees remained neutral with the statement.

Survey Statement 7: Regular feedback on transformational leadership is critical to bridging the gap between the leader and the employee.

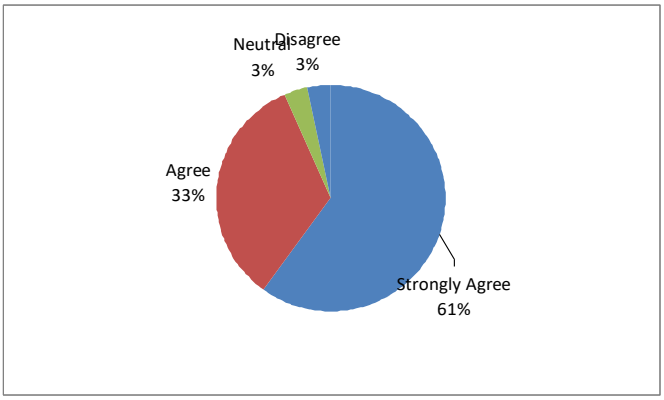
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	0	0.00%
4	Agree	4	13.33%
5	Strongly Agree	26	86.67%
Total		**30**	**100%**



87% of the employees strongly agree and 13% of the employees agree that Feedback on transformational leadership should be taken at regular intervals to bridge the gap between leaders and employees.

Survey Statement 8: Transformational Leader's inspiration and inclusiveness positively make an impact on Employee Engagement.

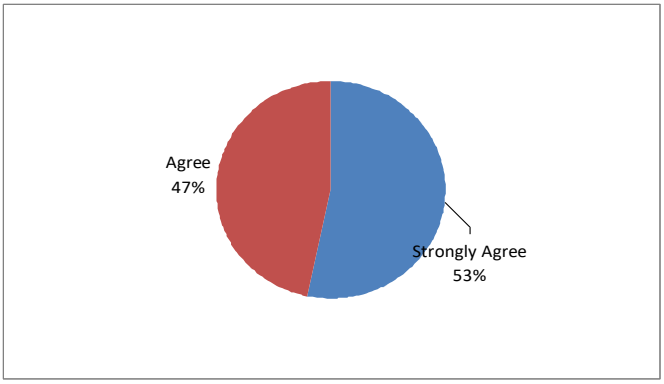
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	1	3.33%
3	Neutral	1	3.33%
4	Agree	10	33.33%
5	Strongly Agree	18	60.00%
Total		**30**	**100%**



61% of the employees strongly agree and 33% of the employees agree that Transformational Leader's inspiration and inclusiveness positively make an impact on Employee Engagement. 3% of the employees remained neutral while 3% of the employees disagree with the statement.

Survey Statement 9: Empathy by leaders positively affects employee relations, transformation and innovation.

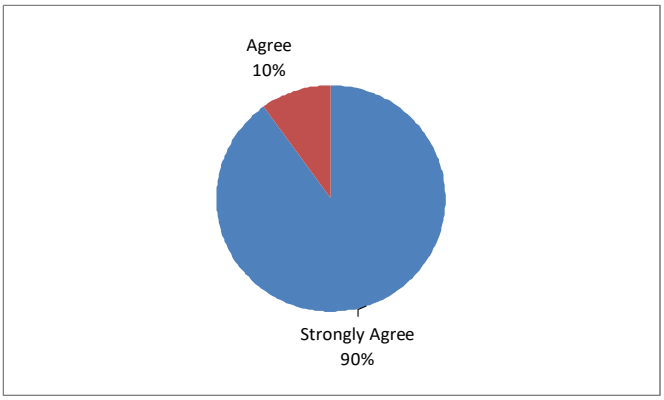
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	0	0.00%
4	Agree	14	46.67%
5	Strongly Agree	16	53.33%
Total		**30**	**100%**



53% of the employees strongly agree and 47% of the employees agree that empathy by leaders positively affects employee relations, transformation and innovation.

Survey Statement 10: Vision and mission are important characteristics of transformation leaders in the pursuit of organizational goals.

No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	0	0.00%
4	Agree	3	10.00%
5	Strongly Agree	27	90.00%
Total		**30**	**100%**



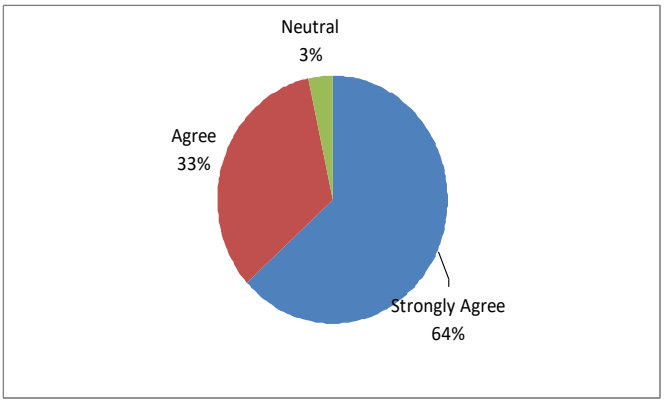
90% of the employees strongly agree and 10% of the employees agree that Transformation Leaders should have a strong sense of vision and mission in the pursuit of organizational goals.

5.1.2 Innovation Management & Product Management

Below is the summary and graphical representation of the survey results per each survey statement related to organizational Innovation management & Product Management.

Survey Statement 11: Intellectual Stimulation helps in the functional improvement of product innovation.

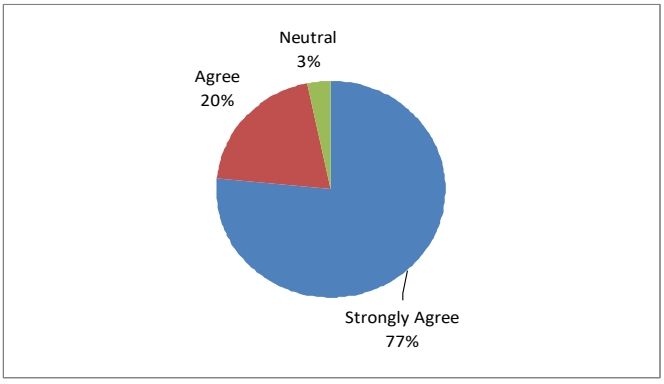
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	10	33.33%
5	Strongly Agree	19	63.33%
Total		**30**	**100%**



64% of the employees strongly agree and 33% of the employees agree that Intellectual Stimulation helps in the functional improvement of product innovation. 3% of the employees remained neutral with the statement.

Survey Statement 12: Efficiency in innovation management contributes to increased efficiency in product development.

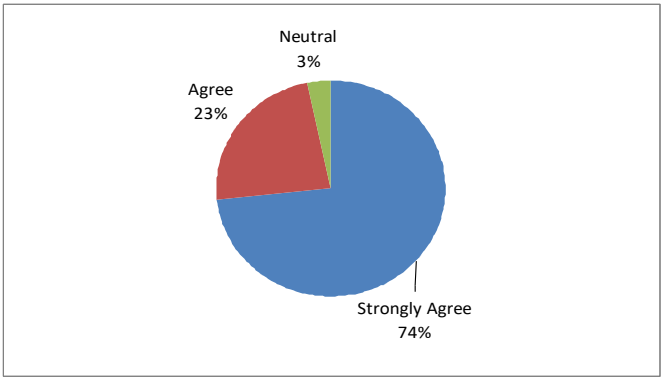
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	6	20.00%
5	Strongly Agree	23	76.67%
Total		**30**	**100%**



77% of the employees strongly agree and 20% of the employees agree that efficiency in innovation management contributes to increased efficiency in product development. 3% of the employees remained neutral with the statement.

Survey Statement 13: Workshops should be conducted by Transformation Leaders to bring out innovative ideas from the employees.

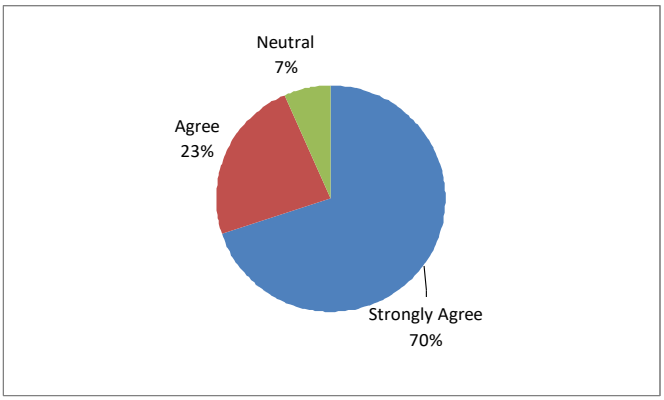
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	7	23.33%
5	Strongly Agree	22	73.33%
Total		**30**	**100%**



74% of the employees strongly agree and 23% of the employees agree that Workshops should be conducted by Transformation Leaders to bring out innovative ideas from the employees. 3% of the employees remained neutral with the statement.

Survey Statement 14: The relationship between transformational leadership & innovation management is strong.

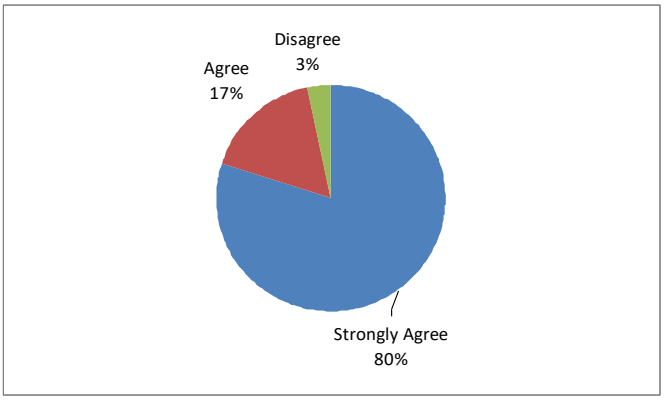
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	2	6.67%
4	Agree	7	23.33%
5	Strongly Agree	21	70.00%
Total		**30**	**100%**



70% of the employees strongly agree and 23% of the employees agree that there is a strong relationship between transformational leadership and innovation management. 7% of the employees remained neutral with the statement.

Survey Statement 15: Employee innovative and creative mindset is highly influenced by the motivation given by the Leaders.

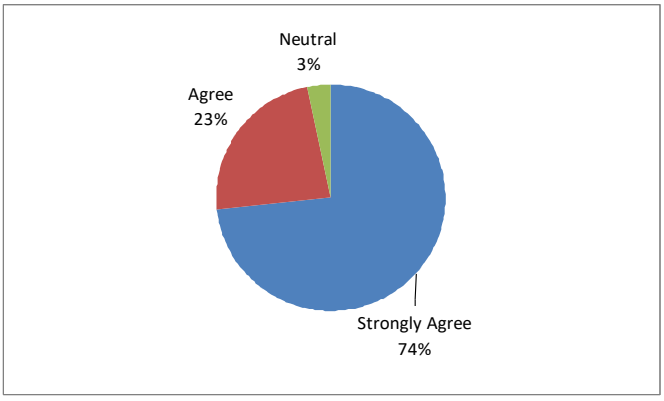
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	1	3.33%
3	Neutral	0	0.00%
4	Agree	5	16.67%
5	Strongly Agree	24	80.00%
Total		**30**	**100%**



80% of the employees strongly agree and 17% of the employees agree that employee innovative and creative mindset is highly influenced by the motivation given by the Leaders. 3% of the employees remained disagree with the statement.

Survey Statement 16: Transformational Leadership plays a key role in effective product innovation and development.

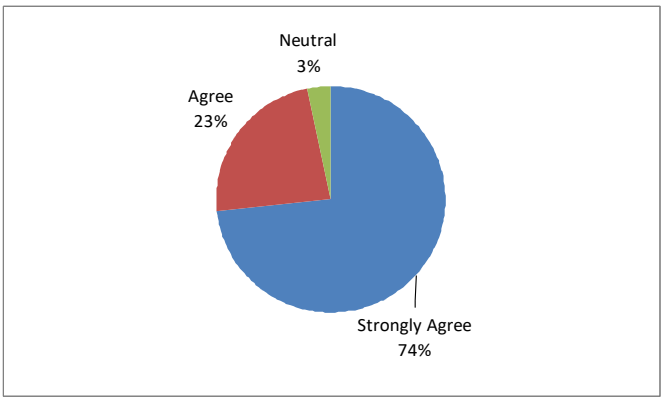
No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	7	23.33%
5	Strongly Agree	22	73.33%
Total		**30**	**100%**



74% of the employees strongly agree and 23% of the employees agree that Transformational Leadership plays a key role in effective product innovation and development. 3% of the employees remained neutral with the statement.

Survey Statement 17: Innovation Management plays a key role in effective product development.

No.	Option	Frequency	Percentage (%)
1	Strongly Disagree	0	0.00%
2	Disagree	0	0.00%
3	Neutral	1	3.33%
4	Agree	7	23.33%
5	Strongly Agree	22	73.33%
Total		**30**	**100%**



74% of the employees strongly agree and 23% of the employees agree that Innovation Management plays a key role in effective product development. 20% of the employees remained neutral with the statement.

5.2 Interpretation of Results

An analysis of the impact of transformational leadership and innovation management on IT company product development has been conducted using the Pearson Correlation Coefficient. Pearson correlation co-efficient measures the relationship between two different variables, it calculates the level of change in one variable compared to another. The values of correlation range is between -1 and +1. A negative co-efficient implies inverse relationship while a positive value implies a direct relationship between the two variables.

Mean Impact of Transformational Leadership (Average)	**Mean Impact of Innovation Management (Average)**	**Pearson Correlation Co-efficient (r)**
4	4.33	
4.33	4.67	
5	5	
4.67	5	
5	5	
4.33	4.67	
4.33	5	
4.33	5	
5	5	
5	5	
4.67	5	
5	5	
4	4.33	
5	5	
5	5	
4.67	4.33	0.5
4.67	3.67	
4.67	4	
4.33	4.33	
4.33	4.33	
4.33	4.33	
4.67	4.67	
5	5	
4.67	4	
5	5	
5	5	
4.33	4.67	
4.67	5	
4	4.33	
4.33	4.67	

5.2.1 Degree of Correlation

If the value of correlation is near ± 1, then it said to be a perfect correlation: as one variable increases, the other variable tends to also increase (if positive) or decrease (if negative).

If the coefficient value falls between ± 0.50 and ± 1, then it is said to be a strong correlation.

If the value lies between ± 0.30 and ± 0.49, then it is said to be a medium correlation.

When the value lies below + .29, then it is said to be a small correlation.

When the value is zero, then there is no correlation (Schober, Boer, & Schwarte, 2018).

Since the coefficient value in our research lies between **± 0.50** and **± 1**, there is a **strong correlation** between the two variables transformational leadership & innovation management with the IT product development.

6.0 CONCLUSIONS AND RECOMMENDATIONS

A set of 17 closed ended questions were created and distributed to the leadership in IT projects using Google forms to get feedback on the impact of transformational leadership & innovation management on the delivery of IT Products. Review of literature is being carried out to identify the key factors that influence the product development. The results of the study have been analyzed with percentage and graphical analysis. Further, the correlation between the two variables transformational leadership and innovation motivation with the IT project management is calculated with Pearson correlation coefficient using excel formulas.

Based on the results, most employees feel that transformational leadership positively impacts on empowerment of employees, explores and implements innovative ideas to improve product quality, considers the opinions and ideas of the employees, improves the innovative productivity, and has a beneficial side of impact on employee engagement, employee relations, and transformation.

The employees further observed that the transformational leaders should have a strong sense of vision and mission in pursuit of organizational goals, feedback on transformational leadership should be taken at regular intervals to bridge the gap between the management and employees. Challenges in transformational leadership include aligning the individual interests of employees with the organizational interests, and motivating them to come up with new ideas for improving the business processes. Over enthusiasm of leadership and miscommunication among the leaders and employees are also some of the major challenges. Workshops should be conducted by the management to bring out innovative ideas from the employees.

The research observed that Intellectual Simulation, efficiency in innovation management helps in the improvement of IT product development. Innovative and creative mindset is highly influenced by the motivation given by the Leaders. Challenges in innovation management include improving the existing process and operations, identifying new ways to serve the existing customers, identifying better opportunities, making new products and serving new markets, identifying the social needs, offering novelty in products and services that competition cannot offer, identifying the competitive factors, entering first into the markets. Lack of diversity and collaboration also hinder the innovation management process. The percentage analysis shows that there is a great relationship between transformational leadership & innovation management, so that the Innovation Management plays a key role in effective product management. The Pearson correlation test indicates that there is a strong correlation between the two variables transformational leadership and innovation management with the IT product management.

Some limitations have been identified in this research study. The study is mostly reliant on secondary data and a closed ended questionnaire. An open-ended questionnaire or data collection methods like personal interviews, seminars and group discussions would have provided more insights on the topic

chosen. Further, the sample size of 30 employees also may not be adequate enough to get the trend and correlation analysis. Further research can be carried out on the topic to expand the scope to companies in other sectors with a bigger sample size to get a better picture.

To sum up, Transformational leadership and Innovation management play a key role in the successful development of IT products. Companies should focus on hiring and supporting the transformational leaders to empower the employees and bring out the best productivity and quality.

These leaders should adapt and implement the innovative ideas in meeting the vision and mission of the organization. Workshops should be conducted and feedback should be taken at regular intervals to encourage the employees. The management should also focus on factors like inspirational motivation, idealized influence, individual consideration, intellectual simulation, operational innovation management, and functional innovation management to improve the IT product development through product design management, development and delivery.

IT Companies should find out ways to develop themselves by making efforts through the transformational leadership. Further, Transformational Leadership and Innovation Management have a strong correlation and both go hand in hand in the development of IT Products. Measures should be taken to develop and improve the transformational leadership and innovation management as an ongoing process.

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8.0 APPENDIXES

8.1 Survey Statements

Below table comprises of the statements used for survey to collect the primary data.

Transformational Leadership						
S. No	**Research Statement**	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1	Transformational Leadership has a strong influence on the empowerment of employees at workplace.	1	2	3	4	5
2	Transformational Leaders encourage exploring and implementing innovative ideas in improving the product quality.	1	2	3	4	5
3	Opinions of employees are valued and ideas are considered by the Leaders.	1	2	3	4	5
4	Transformational Leadership helps in the improvement of product innovation.	1	2	3	4	5
5	Transformational Leaders consider the differing opinions of employees in innovative problem solving.	1	2	3	4	5
6	Transformational Leadership attitude and behavior improves the employee innovative productivity.	1	2	3	4	5
7	Regular feedback on transformational leadership is critical to bridging the gap between the leader and the employee.	1	2	3	4	5
8	Transformational Leader's inspiration and inclusiveness positively make an impact on Employee Engagement.	1	2	3	4	5
9	Empathy by leaders positively affects employee relations, transformation and innovation.	1	2	3	4	5
10	Vision and mission are important characteristics of transformation leaders in the pursuit of organizational goals.	1	2	3	4	5
Innovation Management & Product Management						
11	Intellectual Stimulation helps in the functional improvement of product innovation.	1	2	3	4	5
12	Efficiency in innovation management contributes to increased efficiency in product development.	1	2	3	4	5
13	Workshops should be conducted by Transformation Leaders to bring out innovative ideas from the employees.	1	2	3	4	5
14	The relationship between transformational leadership & innovation management is strong.	1	2	3	4	5

15	Employee innovative and creative mindset is highly influenced by the motivation given by the Leaders.	1	2	3	4	5
16	Transformational Leadership plays a key role in effective product innovation and development.	1	2	3	4	5
17	Innovation Management plays a key role in effective product development.	1	2	3	4	5