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Impact of Virtual Work Teams on Job Performance in the IT Industry of Sri Lanka

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Abstract

Virtual Work Teams is a team working together from different physical locations using collaborative Information and Communication Technologies. This concept is particularly associated with the IT Industry due to its nature and have become increasingly prevalent in Sri Lanka particularly with the Covid-19 pandemic. Hence, with the novelty of virtual work teams in Sri Lanka and the lack of prior studies from the context of Sri Lankan IT Industry a research gap was identified. As an attempt to address this, the study aims to find the impact of virtual work teams on job performance in Sri Lanka's IT industry, considering five independent variables: communication, leadership, empowerment, cohesion, and trust. Conducted as an explanatory, cross-sectional field study with convenient sampling, data was collected via a Google Form questionnaire from a sample of 380 virtual workers out of a population of 34,500. Data analysis was conducted using SPSS, encompassing correlation and regression analyses to test hypotheses. As per the findings, communication presented the strongest positive correlation with job performance, followed by moderately positive correlations for leadership, empowerment, cohesion, and trust. All variables statistically significantly influenced job performance individually, but cohesion did not have a statistically significant impact collectively in multiple regression analysis. Results highlight the importance of making investments in communication tools within virtual teams and also suggests using probability sampling for future research.

Key words: Virtual Work Teams, IT Industry

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Introduction

A team can be identified as a group of people working together to achieve a predetermined common goal. Virtual Work Teams can be defined as a group of people or stakeholders working together from different locations, and possibly different time zones who are collaborating on a common project and use information and communication technologies intensively to co-create. (Garro-Abarca1 et al., 2021) In other words, it is a method of organizing work that enables employees to collaborate even when they are geographically distant. Advances in Information Technology has brought drastic changes in business operations, organizational structures, communication, strategies, processes, and policies. As a result, the necessity for virtual work teams has emerged, and technical improvements and international competitors have expedited this trend. Virtual teams are increasingly being used to accomplish corporate objectives. A virtual work team with good collaboration and high performance is believed to be one of the major competitive advantages in the modern Information Technology industry.

Information Technology industry has become a rapidly growing industry in Sri Lanka and has currently become the country's fourth largest export earner. By attracting foreign investment, earning foreign currency, creating jobs, increasing productivity, and fostering innovation, the IT sector has proven its capacity to benefit the nation's economy. (ICTA, 2019) Over the past ten years, Sri Lanka's ICT sector has grown to be a significant source of foreign currency. The export of telecommunication, computer, and information services generated US$ 995 million in revenue in 2018, according to CBSL. At present Sri Lankan IT industry is estimated to be earning a revenue of USD 1.5 billion which accounts for nearly 2% of the country's GDP. (Ada Derana, 2022) Despite that being a small contribution, with attractive competitive factors such as availability of skilled workers, agility, cultural adaptability and ideal business environment, it is said to become a USD 3 billion industry by 2024, creating over 300,000 direct jobs and enabling over 1000 start-ups in the country. (Daily News, 2021)

Moving on to the popularity of virtual work teams in Sri Lanka, the covid-19 pandemic majorly factored for virtual work teams to become a prevalent concept in Sri Lanka. As a result of several preventive measures taken by the government to stop the spread of the disease, new health guidelines were introduced, quarantine centers were established and island wide lockdowns were imposed. Hence, due to the health guidelines and travel restrictions employees were bound to their homes and hence virtual work teams grew along with the concept of Work from Home. Furthermore, the persistent fuel shortage also influenced for virtual work teams to be implemented by organizations. As a result of the fuel shortage in the country, employees were unable to travel to work and prompting organizations to offer the option of working from home. Hence, virtual work teams arose in the market again. With the increasing popularity of

Virtual Work Teams, a number of studies have been done with related to several aspects and relationships with virtual work teams. But due to the novelty of the concept of virtual work teams in Sri Lanka and the lack of prior studies on the topic from the context of the IT Industry of Sri Lanka, a research gap could be identified. It was also identified that the day-to-day team relationship has not been evaluated in depth due to the recent popularity of virtual work teams in Sri Lanka. With virtual work teams being a feature of the Work from Home concept, few interviews have been conducted with employees who were working from home. But it was identified that virtual work team relationship has not been the main focus of these interviews, but only a feature of the work from home concept. Also, with the few interviews that have been conducted with employees who were working from home, observations have emphasized the team relationship to be weak. But there is lack of studies relating to factors that could strengthen the virtual team relationship. Therefor as an attempt to address the existing research gap, the study would be conducted to examine the impact of virtual work teams on the job performance of the IT industry of Sri Lanka.

As per the prior literature on the study virtual work teams have been defined and analyzed in several different ways. As per a very recent study done on the virtual teams in times of pandemic, virtual team is defined as ‘a group of people or stakeholders working together from different locations and possibly different time zones, who are collaborating on a common project and use information and communication technologies (ICTs) intensively to cocreate.’ (Garro-Abarca1 et al., 2021) In simple terms it can be identified as an arrangement where members are geographically scattered but technologically connected. (Dharmasiri, 2011) According to another study, conducted on the effectiveness of virtual teams, it has been identified that members of virtual teams collaborate closely, bear responsibility for the results, and rely heavily on technology to facilitate communication. Furthermore, it has identified that as a result of the new generation of workers' demand for personal flexibility, virtual team is appealing to a majority of employees. (Pangil & Chan, 2014) Prior studies conducted on virtual work teams have identified several challenges in managing virtual work teams. As per a study done recently on the ‘Challenges and Barriers in Virtual Teams’ the challenges have been categorized in to five groups as challenges pertaining due to physical distance, temporal distance, perceived distance, combination of scattered teams and worker diversity. (Morrison - Smith S, 2020) This study has also addressed an important question as to how technology can be designed to support virtual teams. Suggestions include facilitating communication, providing mechanisms for work transparency, assist creation of common ground and work standards and design lightweight, familiar technology.

Input Process Output Model

The Input Process Output model (IPO Model) is a conceptual framework

used to understand and analyze the functioning of groups and teams, including virtual teams. It was founded by authors Richard Hackman and Charles Morris (Hackman & Morris, 1975) who built it on the basis of a 1964 article by McGrath and developed it to explain team effectiveness. As shown in the figure below, it is proposed that group performance is directly impacted by the group's inputs, which have been defined as the individual characteristics of the members, the group's characteristics, and the environment of the group. These factors influence the group's subsequent interaction, which in turn influences the team's outcome or performance. So as per the IPO model number of variables contribute to the team effectiveness. While the variables under evaluation may vary from study to study, the I-P-O model's fundamental principle is that these variables can be categorized into two stages: the input factor stage and the process factor stage, and that the inputs have an impact on the process variables, which then have an impact on the outputs or performance of the virtual team. (Kurz 2021)

As per the IPO Model three input categories can be identified which serve as key determining criteria for virtual teams. First category is the organizational level category which includes variables representing the actions of organization in the design of virtual teams (e.g.- forming, scaling, structuring), the delegation of roles, responsibilities, and goals, as well as elements like the actual work spaces that virtual team members function in. The second input category is the team leadership category. Some of these leadership skills include the ability to influence and facilitate team member engagement, good communication skills, an understanding of cultural diversity, and ability to build trust and relationships with their geographically dispersed team members. The third input category is the team composition which represents both surface-level and deep-level diversity and individual differences, both of which are likely to have an impact on team processes and outcomes. The next main stage of the IPO model is the 'Team Processes and Emergent States'. As per prior studies and as it has been depicted by the diagram, the relationship between inputs and outputs is mediated by team processes components and emerging states. Team processes are the interdependent actions that team members take to convert inputs into output. Emergent states and processes include behavioral processes such as shared leadership, communication, and technology use as well as cognitive processes such as team cognition and cognitive climate, motivational processes such as teamwork engagement, affective processes such as team cohesiveness. Next the IPO model represents the moderators which includes factors that would moderate the strength or direction of the inputs and process pathway as well as the process and outcome pathway. Here the primary moderator is identified as virtuality but it includes other moderators such as task interdependence, task complexity and team context as well

The final element of the IPO model as shown by the figure is outcomes. The

results of the procedures that convert team inputs into outcomes that are valued by the organization are known as outputs. Virtual teams are typically formed to accomplish certain objectives, deliverables, performance outcomes, etc. Two levels of results have been set. The first are team level outcomes, which are represented by metrics like team performance and effectiveness, and show the extent to which the team accomplishes performance goals and objectives. Second, there are individual team member outcomes that capture member efficacy, performance, and attitudes like commitment and satisfaction. Additionally, the IPO model has also shown a feedback loop which illustrates how team outputs affect ongoing team inputs, processes, and emergent states.

As depicted by the IPO model job performance can be identified as a result in the process of converting inputs in to outputs. As per a study done on the factors affecting Job Performance it has been defined as "scalable actions, behavior, and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals." (Pandey, 2018) So simply job performance can be referred as to how well an individual performs his tasks and responsibilities in related to his job.

Hence with reference to the IPO model, job performance has been identified as the dependent variable and as for the independent variables, communication, leadership, empowerment, cohesion and trust have been identified. Accordingly, communication, leadership and empowerment have been mainly categorized under the inputs in the IPO model which sets the stage for the function of virtual teams and cohesion falls under the category of processes as a dynamic that occur within the virtual team as they work together. The variable trust, although not depicted significantly in the IPO model also falls as an input since it is often a pre-existing condition that impacts how well a team collaborates and communicates.

Communication

Communication can be defined as the transition of information between team members and with the organization effectively. Numerous studies have discussed the importance of effective communication in creating a successful virtual work team. The fact that communication takes place predominantly through online technologies is one of the defining characteristics of virtual teams. As per Media Richness Theory (MRT), team members should communicate in order to simplify a particular activity and MRT also contends that different media have varying capacities for handling numerous, contradictory interpretations of information delivered.

Leadership

Leadership can be defined as the influential relationship between leaders and followers who attempt to make changes that benefit their mutual purposes. Leadership plays a significant role in virtual teams in directing and managing team members when they are physically

scattered or working remotely. Leader-Member-Exchange Theory (LMX Theory), also known as Vertical Dyad Linkage theory, is a leadership theory that emphasizes the nature of the relationship between a team's leader and its individual members.

Empowerment

Empowerment in a team happens when team members possess the responsibility and authority to make decisions in the team. It entails developing a positive and embracing team culture where people feel appreciated, respected, and empowered to take action. (Francis, 2023) ". Prior studies have identified that empowerment is interrelated with job satisfaction and job performance. Further in research conducted in a telecommunication sector, a positive relationship has been identified between team empowerment and team performance. (Topaloglu, 2021)

Cohesion

Cohesion can be defined as the tendency of group members to stick together and remain united in achieving the common goal of the team. In other words, it is the shared bonding or attraction that keeps the team members together in achieving the tasks. Prior studies have found that strong team cohesion may enhance interactions by encouraging more participation, task and role acceptance, and goal attainment, among other aspects, eventually promoting team effectiveness. Also, as per prior studies there is a positive relationship between cohesion and job performance in virtual work teams. (Tan et al., 2018)

Trust

Trust has been defined in several different ways in organizational researches and one of the most common definitions of trust is 'the willingness of a party to be vulnerable to the actions of another party based on the expectations that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party'. (Mayer et al., 1995) The Social Identity Theory is a commonly used conceptual framework for analyzing how social categorization affects team dynamics and trust in virtual teams. Prior studies have emphasized the importance of trust in team building and organizational identity.

Research Objectives

Main objective is the primary outcome expected from the study. It is set based on the identified research gap. Accordingly, the main objective is as follows.

- To find the impact of Virtual Work Teams on job performance in the IT Industry of Sri Lanka

While providing possible suggestions and recommendations to address the main research problem, the secondary objectives intend to establish the relationships between different variables under consideration. Hence, sub objectives are developed to examine the impact of each of the identified variables on job performance of the virtual work teams. Accordingly sub objectives are

developed as follows.

- To find the impact of communication on job performance within virtual work teams in the IT Industry of Sri Lanka.
- To find the impact of leadership on job performance within virtual work teams in the IT Industry of Sri Lanka
- To find the impact of empowerment on job performance within virtual work teams in the IT Industry of Sri Lanka
- To find the impact of cohesion on job performance within virtual work teams in the IT Industry of Sri Lanka
- To find the impact of trust on job performance within virtual teams in the IT Industry of Sri Lanka

The findings of the study would be significant for several parties including researchers, managers and organizations to help emphasize the factors that impact the virtual team performance. Furthermore, due to the lack of prior studies regarding the subject matter it contributes to fill the knowledge gap regarding the virtual work environment in Sri Lanka. Another significance of the study is how the findings can provide a guidance for managers to manage fully virtual workers, physical workers and a blended working environment effectively.

Methodology

The main purpose of the research design is to offer a suitable framework for a study. This study adopts a quantitative and deductive approach as its research methodology. Quantitative approach is the process of gathering and analyzing numerical data. It can be used to identify trends and averages, formulate hypotheses, examine causal relationships, and forecast findings to larger populations. Quantitative approach is used in descriptive, correlational or experimental research. Statistics can be used to formally test hypotheses, or predictions, in both correlational and experimental research. Depending on the sample strategy utilized, the results might be extrapolated to larger populations. The goal of deductive approach is to create a hypothesis (or hypotheses) based on an existing theory, followed by constructing a research strategy to test the hypothesis. Hence as the research methodology a quantitative and deductive approach is applied with data collected through a pilot survey. Here the pilot survey would be carried out via google forum-based questionnaires to be filled by virtual workers in the IT Industry of Sri Lanka. The unit of analysis of the study is virtual workers and hence the respondents are virtual workers in the IT industry of Sri Lanka. The research is also conducted as a cross sectional field study method where data is collected from many different individuals at a single point of time and where the variables are observed without being influenced.

Population and Sample of the Study

The target population of this study is the virtual workers of the IT industry of Sri Lanka. As per the Industry Development reports the current

workforce of the Sri Lankan IT Industry counts to over 150,000 employees. (Bandara, 2023) As per the conducted pilot survey at the beginning of the year with the leading IT companies in Sri Lanka, it was found that 23% of the total employees work virtually. Hence 34,500 virtual workers which is the 23% of the total workforce of 150,000 is taken as the population of the study.

As per the guidelines of the Morgan table, with the population of 34,500 a sample representing 380 virtual workers in the IT industry of Sri Lanka will be taken for the study. The ideal sample size can also be calculated using the sample size calculator by taking a 95% confidence interval and a 5% of margin of error. Hence the Google form questionnaire will be distributed among the selected sample size of 380.

Sampling Technique

As for the sampling technique used for the study convenience sampling is used in which the individuals who happen to be the most accessible will be chosen as the sample. Therefor based on convenient sampling method virtual employees whom will be accessible will be chosen from selected IT Companies in Sri Lanka.

Data Analysis Method

This study adopts the quantitative data analysis method which is a systematic process used in research to analyze numerical data. This allows to obtain meaningful insights, reach conclusions, and make inferences from the gathered data with the use of statistical tools and techniques. Data for the study would be collected through a survey via questionnaires. The sample will be evaluated using frequencies and descriptive statistics. Statistical Package for Social Sciences (SPSS) would be used as the main data analysis technique and correlation and regression analysis would be conducted to test the advanced hypothesis and draw conclusions.

Results

- Demographic Factor Analysis

As per the findings 60% of the total respondents were male and 40% were female. Hence majority of the respondents were male. 78.2% of the respondents belonged to the age category of 20 – 30. The married proportion of the total respondents was 25.3% and 74.8% respondents were unmarried. Out of the total 380 respondents 279 respondents have 1- 5 years of experience in the IT industry. When taken as a % that is 73.4%. Also 45.5% of the total respondents have less than 2 years' experience as a virtual team member and 41.8% respondents have 2 – 5 years of experience in a virtual team. With the analysis of the most widely used communication platforms it was found out that majority of the respondents selected video conferencing tools as the primarily used communication platform in virtual work teams followed with email and chat messaging apps.

- Communication

Five questions were used to analyze this variable. According to the Pearson correlation result the relationship between communication and job

performance is statistically significant. (Sig.(2-tailed) p<0.05) (0.000<0.05) This data supports the alternative hypothesis and hence communication is strongly positively correlated (R = 0.704) with job performance within virtual work teams in the IT Industry of Sri Lanka. This is depicted by Table 1.

As per the regression coefficients, the coefficient for communication is 0.715 which means that for every one-unit increase in Communication, Job Performance is expected to increase by 0.715 units. The constant B value of is 1.218 which indicates the value of Job Performance when value of communication is zero. Since (Sig/P value 0.000 < 0.01) communication has a significant impact on job performance. This is depicted by Table 2.

- Leadership

Five questions were used to analyze this variable. According to the Pearson correlation result the relationship between leadership and job performance is statistically significant. (Sig.(2-tailed) p<0.05) (0.000<0.05) This data supports the alternative hypothesis and hence leadership is moderately positively correlated with job performance with a R value of 0.580 within virtual work teams in the IT Industry of Sri Lanka. This is depicted by table 3.

As per the regression coefficients od table 4, the coefficient for leadership is 0.537 which means that for every one-unit increase in leadership, Job Performance is expected to increase by 0.537 units. The constant B value is 2.098 which indicates the value of Job Performance when value of leadership is zero. Since (Sig/P value 0.000 < 0.01) leadership has a significant impact on job performance. This is depicted by table 3.

- Empowerment

Five questions were used to analyze this variable. According to the Pearson correlation result in table 5, the relationship between empowerment and job performance is statistically significant. (Sig.(2-tailed) p<0.05) (0.000<0.05) This data supports the alternative hypothesis and hence empowerment is moderately positively correlated with job performance (R = 0.665) within virtual work teams in the IT Industry of Sri Lanka.

As per the regression coefficients, the coefficient for empowerment is 0.620 which means that for every one-unit increase in empowerment, Job Performance is expected to increase by 0.620 units. The constant B value is 1.727 which indicates the value of Job Performance when value of empowerment is zero. Since (Sig/P value 0.000 < 0.01) empowerment has a significant impact on job performance. This is depicted by table 6.

- Cohesion

Five questions were used to analyze this variable. According to the Pearson correlation result in table 7, the relationship between cohesion and job performance is statistically significant. (Sig.(2-tailed) p<0.05) (0.000<0.05) This data supports the alternative hypothesis and hence cohesion is moderately positively correlated (R = 0.588) with job

performance within virtual work teams in the IT Industry of Sri Lanka.
As per the regression coefficients, the coefficient for cohesion is 0.565 which means that for every one-unit increase in cohesion, Job Performance is expected to increase by 0.565 units. The constant B value of cohesion is 1.866 which indicates the value of Job Performance when value of cohesion is zero. Since (Sig/P value 0.000 < 0.01) cohesion has a significant impact on job performance. This is depicted by table 8.

- Trust

Five questions were used to analyze this variable. According to the Pearson correlation result the relationship between trust and job performance is statistically significant. (Sig.(2-tailed) $p<0.05$) ($0.000<0.05$) This data supports the alternative hypothesis and hence trust is moderately positively correlated ($R = 0.534$) with job performance within virtual work teams in the IT Industry of Sri Lanka. This is depicted by table 9.
As per the regression coefficients, the coefficient for trust is 0.544 which means that for every one-unit increase in trust, Job Performance is expected to increase by 0.544 units. The constant B value of trust is 2.042 which indicates the value of Job Performance when value of trust is zero. Since (Sig/P value 0.000 < 0.01) cohesion has a significant impact on job performance. This is depicted by table 10.

Discussion

This study was conducted to analyze the impact of virtual work teams on job performance in the IT Industry of Sri Lanka. When conducting this research, 5 independent variables have been taken and namely they are communication, leadership, empowerment, cohesion and trust. Furthermore, job performance has been taken as the dependent variable. A sample size of 380 has been taken for this study and it has been based on the entire IT Industry of Sri Lanka targeting the virtual team employees. Convenient sampling method was used to collect data from the sample and data was collected through a questionnaire based google forum. The questionnaire consists of three sections regarding the demographic factors, independent variables and the dependent variable. Data were gathered from 382 respondents 380 responses were validated for the analysis. The data was analyzed using the SPSS software and the outcome of the analyzed data can be discussed as follows.

- The Impact between communication and job performance within virtual work teams in the IT Industry of Sri Lanka

According to the Pearson correlation result the variable communication is strongly positively correlated (Correlation Coefficient – 0.704) (Sig. (2-tailed) (P) – 0.000) < 0.01 (01.00%) with Job Performance. As per table 3 the R^2 value is 0.494 which means than 49.4% of the variation in Job Performance within virtual teams is explained by communication. Since this is almost 50% it indicates that communication is the most significant

variable having an impact on Job Performance within virtual work teams in the IT Industry of Sri Lanka. The F ratio (371.274) is significant at 1%. (Sig / P value = 0.000 < 0.01, which means the overall regression model for communication is significant. Hence the impact between Communication and Job Performance within virtual work teams is statistically significant.

This is in consistent with the results of prior studies where communication has been identified to have a significant relationship with job performance within virtual teams. This has been confirmed by the findings that since clear communication helps prevent misunderstandings and conflict, it is a significant factor impacting the job performance of virtual teams. (Chong et al., 2019)

- The Impact between leadership and job performance within virtual work teams in the IT Industry of Sri Lanka

According to Pearson correlation result the variable leadership is moderately positively correlated (Correlation Coefficient – 0.580) (Sig. (2-tailed) (P) – 0.000) < 0.01 (01.00%) with Job Performance within virtual work teams at 1% significant level. The R squared value of leadership is 0.337 which means that 33.7% of the variation in Job Performance within virtual work teams of IT Industry in Sri Lanka is explained by the variable leadership. F ratio (192.113) is significant at 1%. (Sig / P value = 0.000 < 0.01) which means the overall regression model of leadership and job performance is significant. Hence the impact of leadership on job performance within virtual work teams in the IT Industry of Sri Lanka is statistically significant.

These findings have been confirmed by several prior studies including one study where leadership has been found to have a significant impact on the effectiveness of virtual teams where job performance one of the dimensions of the team effectiveness. (Maduka et al., 2018) Another recently conducted study on virtual team leadership has also highlighted the significance leadership has on the job performance within virtual teams and has emphasized on the importance of leadership in attracting and retaining employees in the highly competitive labour market. (Greimel et al., 2023)

- The Impact between empowerment and job performance within virtual work teams in the IT Industry of Sri Lanka

According to Pearson correlation result the variable empowerment is moderately positively correlated (Correlation Coefficient – 0.665) (Sig. (2-tailed) (P) – 0.000) < 0.01 (01.00%) with Job Performance within virtual work teams at 1% significant level. The R squared value of empowerment is 0.442 which means that 44.2% of the variation in Job Performance within virtual work teams of IT Industry in Sri Lanka is explained by the variable leadership. F ratio (299.378) is significant at 1%. (Sig / P value = 0.000 < 0.01) which means the overall regression model of leadership and job performance is significant.

This has been confirmed by a recent study conducted on 'Virtual Team Performance Factors' which found a positive relationship between team empowerment and team performance in virtual teams. Further evidence from this research has shown that trust is necessary in achieving this. The findings have also stated that empowerment can only be achieved when a team has a common vision and open, frequent communication with the leader. (Garro-Abarca1 et al., 2021)

- The Impact between cohesion and job performance within virtual work teams in the IT Industry of Sri Lanka

According to Pearson correlation result the variable cohesion is moderately positively correlated (Correlation Coefficient – 0.588) (Sig. (2-tailed) (P) – 0.000) < 0.01 (01.00%) with Job Performance within virtual work teams at 1% significant level. The R squared value of cohesion is 0.345 which means that 34.5% of the variation in Job Performance within virtual work teams of IT Industry in Sri Lanka is explained by the variable leadership. F ratio (199.330) is significant at 1%. (Sig / P value = 0.000 < 0.01) which means the overall regression model of leadership and job performance is significant.

This is also confirmed by prior studies in which the findings have demonstrated that the success of a virtual team and job performance depends on the team members capacity to get along with one another. (Garro-Abarca et al., 2021) Findings of another study also presents a positive relationship between cohesion and job performance and has indicated that cohesion is connected to a number of favourable outcomes, including heightened awareness of problems, a willingness to change, increased motivation, and better morale. (Tan et al., 2018)

- The impact between trust and job performance within virtual work teams in the IT Industry of Sri Lanka

According to Pearson correlation result the variable trust is moderately positively correlated (Correlation Coefficient – 0.534) (Sig. (2-tailed) (P) – 0.000) < 0.01 (01.00%) with Job Performance within virtual work teams at 1% significant level. The R squared value of trust is 0.285 which means that 28.5% of the variation in Job Performance within virtual work teams of IT Industry in Sri Lanka is explained by the variable leadership. F ratio (150.507) is significant at 1%. (Sig / P value = 0.000 < 0.01) which means the overall regression model of leadership and job performance is significant.

This too is confirmed by prior studies which have shows a significant impact of trust on job performance within virtual teams. Findings of one study has reported that the taxonomy of trust is applicable not only for face-to-face teams but for virtual teams as well. (Breuer et al., 2020) Another study conducted on 'The role of trust climate in virtual teams' has affirmed team goals can more effectively convert into team cohesion when there is a high level of trust among team members, making them feel safer to invest in social interactions and behaviors with one another, which

eventually results in higher performance. (Brahm & Kunze, 2012)

Conclusion

In conclusion, this research has shed light on the complex dynamics of virtual teams within the IT industry in Sri Lanka and their influence on job performance. The study investigated five critical variables namely, communication, leadership, empowerment, cohesion, and trust and their interconnectedness and their impact on job performance in the context of virtual teams in the IT Industry of Sri Lanka. Findings of the study revealed several important insights.

As identified from the finding's communication is the variable which has a strong positive correlation with job performance within virtual teams. (R=0.704) Therefor this suggests that enhanced job performance within virtual work teams in Sri Lanka's IT industry depends heavily on efficient communication. This conclusion emphasizes the value of making investments in communication tools and techniques to promote efficient information sharing among team members. Hence IT Companies should implement the most effective communication platforms and provide reliable and secure tools for video conferencing, instant messaging, file sharing and other tasks. Teams should be trained in using these tools effectively.

The research findings derived a moderate positive correlation between leadership and job performance indicating its' significance. Therefor leaders should have specialized training in remote leadership abilities, including how to establish clear objectives, offer guidance, and empower team members virtually.

The study also revealed a moderate positive correlation between empowerment and job performance. Empowerment can result in higher job performance in an industry like IT, where innovation and problem solving are essential. Hence, within virtual teams, organizations should foster a culture of delegation and autonomy.

The analysis of the study also indicated a moderate positive correlation between cohesion and job performance. The finding highlights the significance of activities for team-building, establishing a sense of belonging, and providing opportunities for social interaction to enhance job performance within virtual teams. Trust also had a statistically significant impact on virtual teams' performance with a moderately positive correlation. So, organizations should focus on trust building measures such as transparent communication, regular feedbacks and surveys.

Also, as suggestion for future studies, it should be considered to use probability sampling methods, such as simple random sampling, stratified random sampling or cluster sampling, in place of convenience sampling. Because the main limitation of the study can be identified as the chosen sampling technique which is the convenient sampling method under the non-probability sampling techniques. Henceforth using a probability sampling technique will be more likely to collect a more representative sample of virtual team members, which would provide more reliable and valid outcomes with a

minimum level of bias resulting in conclusions that are more broadly applicable. Another suggestion for future research would be to conduct longitudinal studies that follow virtual teams over an extended period to understand how their job performance evolves, what challenges they face over time, and how they adapt to changing work environments and technologies.

Therefor in conclusion it can be stated that the study has met its research objectives.

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Tables and Figures

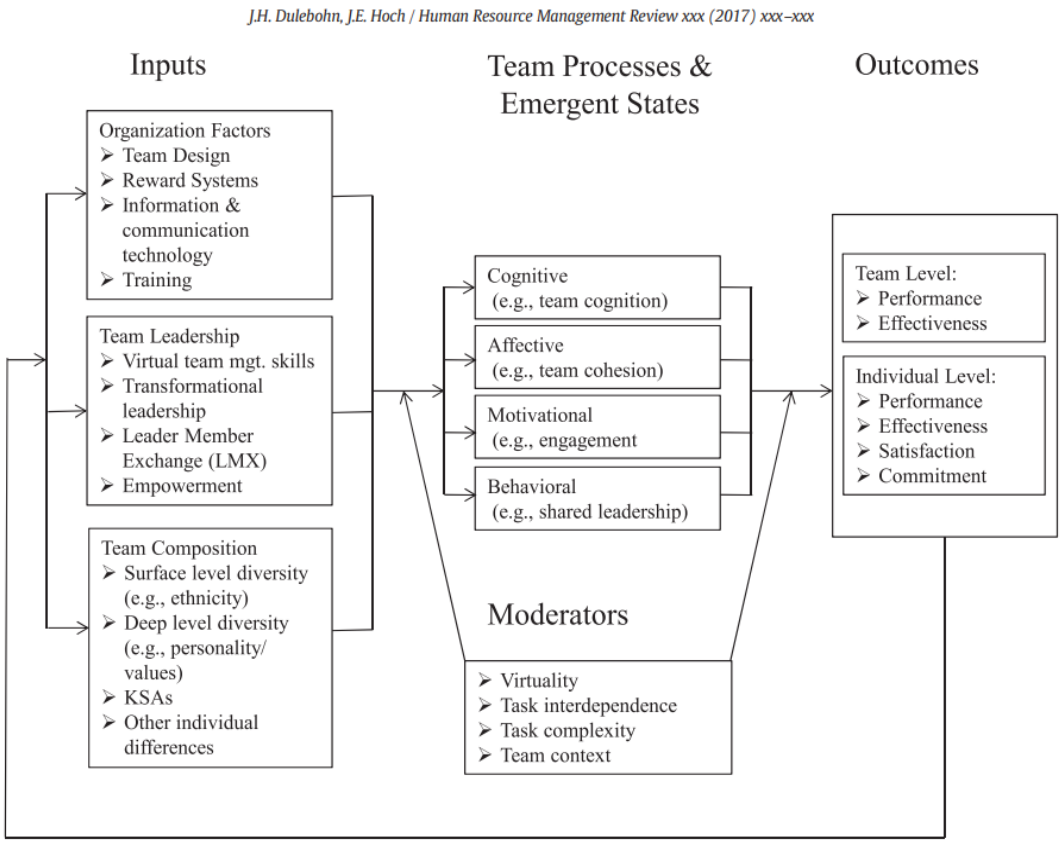

Figure 1 - Input Process Output Model

Table 1- Correlation Analysis for Communication and Job Performance

Correlations			
		CC	JP
CC	Pearson Correlation	1	.704**
	Sig. (2-tailed)		.000
	N	380	380
JP	Pearson Correlation	.704**	1
	Sig. (2-tailed)	.000	
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 2 - Coefficients for Communication

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.218	.160		7.592	.000
	CC	.715	.037	.704	19.268	.000
a. Dependent Variable: JP						

Table 3 - Correlation Analysis for Leadership

Correlations			
		JP	LL
JP	Pearson Correlation	1	.580**
	Sig. (2-tailed)		.000
	N	380	380
LL	Pearson Correlation	.580**	1
	Sig. (2-tailed)	.000	
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 4 - Coefficients for Leadership

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.098	.159		13.152	.000
	LL	.537	.039	.580	13.860	.000
a. Dependent Variable: JP						

Table 5 - Correlation Analysis for Empowerment

Correlations			
		JP	EE
JP	Pearson Correlation	1	.665**
	Sig. (2-tailed)		.000
	N	380	380
EE	Pearson Correlation	.665**	1
	Sig. (2-tailed)	.000	
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 6 - Coefficients for Empowerment

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.727	.149		11.570	.000
	EE	.620	.036	.665	17.303	.000
a. Dependent Variable: JP						

Table 7 - Correlation Analysis for Cohesion

Correlations			
		JP	CO
JP	Pearson Correlation	1	.588**
	Sig. (2-tailed)		.000
	N	380	380
CO	Pearson Correlation	.588**	1
	Sig. (2-tailed)	.000	
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 8 - Coefficients for Cohesion

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.866	.173		10.793	.000
	CO	.565	.040	.588	14.118	.000
a. Dependent Variable: JP						

Table 9 - Correlation Analysis for Trust

Correlations			
		JP	TT
JP	Pearson Correlation	1	.534**
	Sig. (2-tailed)		.000
	N	380	380
TT	Pearson Correlation	.534**	1
	Sig. (2-tailed)	.000	
	N	380	380
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 10 - Coefficients for Trust

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.042	.184		11.066	.000
	TT	.544	.044	.534	12.268	.000
a. Dependent Variable: JP						

References

Breuer, C., Hüffmeier, J., Hibben, F., & Hertel, G. (2020). Trust in teams: A taxonomy of percieved trustworthiness factors and risk taking behaviours in face-to-face and virtual teams. Human Relations, 73(1), 3 - 34. https://doi.org/i.org/10.1177/0018726718818721

Ada Derana. (2022, August 2). Ada Derana Business. Retrieved from Sri Lankan IT industry and its unchartered potential in local economic resurgence: http://bizenglish.adaderana.lk/sri-lankan-it-industry-and-its-unchartered-potential-in-local-economic-resurgence/

Bandara, I. (2023, May 30). Best Workplaces in IT/ITES Industry of Sri Lanka for 2023. Retrieved from FT: https://www.ft.lk/special-report/Best-Workplaces-in-IT-ITES-Industry-of-Sri-Lanka-for-2023/22-748880#:~:text=As%20the%203rd%20highest%20export,employees%20(SLASSCOM%2C%202023).

Brahm, T., & Kunze, F. (2012). The role of trust climate in virtual teams. Journal of Managerial Psychology, 27, 595-614. https://doi.org/10.1108/02683941211252446

Chong, T. K., T, R., Teoh, A. P., & Cheah, J.-H. (2019). Factors influencing virtual team performance in Malaysia. Virtual Team Performance, 48, 2065-2092. https://doi.org/10.1108/K-01-2018-0031

Daily News. (2021, November 18). ICT set to become US$ 3 bn industry here by 2024. Retrieved from Daily News: https://www.dailynews.lk/2021/11/18/local/264957/ict-set-become-us-3-bn-industry-here-2024

Dharmasiri, D. A. (2011, March 21). Versatility of Virtual Teams: Relevance to Sri Lanka. Retrieved

from DailyFT: https://www.ft.lk/Columnists/versatility-of-virtual-teams-relevance-to-sri-lanka/4-23324

Francis. (2023, April 16). Is Team Empowerment: Unlocking the Potential of Your Group. Retrieved from Meaning of Number: https://meaning-of-number.com/is-team-empowerment-unlocking-the-potential-of-your-group/#:~:text=Team%20empowerment%20refers%20to%20the%20process%20of%20enabling,fostering%20a%20culture%20of%20collaboration%2C%20trust%2C%20and%20accountability.

Garro-Abarca, V., Palos-Sanchez, P., & Aguayo-Camacho, M. (2021). Frontiers in Psychology. Virtual Teams in Times of Pandemic: Factors That Influence Performance, 14.

Garro-Abarca1, V., Palos-Sanchez, P., & Aguayo-Camacho, M. (2021). Virtual Teams in Times of Pandemic: Factors That Influence Performance. frontiers in Psychology, 12. https://doi.org/10.3389/fpsyg.2021.624637

Greimel, N., Kanbach, D., & Chelaru, M. (2023). Virtual teams and transformational leadership: An integrative literature review and avenues for further research. Journal of Innovation & Knowledge(8). https://doi.org/10.1016/j.jik.2023.100351

Hackman, R., & Morris, C. (1975). Group Tasks, Group Interaction Process, and Group Performance Effectiveness: A Review and Proposed Integration. Advances in Experimental Social Psychology.

ICTA. (2019, August 8). Sri Lanka aiming 200,000 ICT workforce by 2022. Retrieved from ICTA: https://www.icta.lk/news/sri-lanka-aiming-200000-ict-workforce-by-2022/

Maduka, N., Edwards, H., Greenwood, D., Osborne, A., & Babatunde, S. (2018). Analysis of competencies for effective virtual team leadership in building successful organisations.

Mayer, R. C., Davis, J. H., & Schoorman, D. (1995). An Integrative Model of Organizational Trust. The Academy of Management Review.

Morrison - Smith S, R. J. (2020). Challenges and barriers in virtual teams: a literature review. Springer Nature. https://doi.org/10.1007/s42452-020-2801-5

Pandey, J. (2018). Factors affecting job performance: an integrative review of literature. Factors affecting job performance, 2(42), 263-289. https://doi.org/10.1108/MRR-02-2018-0051

Pangil , F., & Chan, J. M. (2014). The mediating effect of knowledge sharing on the relationship between trust and virtual team effectiveness. Journal of Knowledge Management, 18, 92 - 106. https://doi.org/10.1108/JKM-09-2013-0341

Tan, C. K., T, R., Teoh, A. P., & Cheah, J.-H. (2018). Factors influencing virtual team performance in Malasia. Virtual Team Performance, 48, 2065-2092. https://doi.org/ 10.1108/K-01-2018-0031

Topaloglu, M. (2021). Exploring Major Factors Affecting Virtual Team Performance. European Journal of Business Management and Research.