THE EFFECT OF LEADER-MEMBER EXCHANGE (LMX) TOWARD ORGANIZATIONAL COMMITMENT, JOB SATISFACTION, AND JOB PERFORMANCE: MODERATING ROLE OF VIRTUAL WORK DURING COVID-19 IN UNIVERSITAS ISLAM INDONESIA

Written By:

Depta Berliantarest Hirnawati

Student Number: 16311054

DEPARTMENT OF MANAGEMENT

INTERNATIONAL PROGRAM

FACULTY OF ECONOMICS

UNIVERSITAS ISLAM INDONESIA

YOGYAKARTA

2022

THE EFFECT OF LEADER-MEMBER EXCHANGE (LMX) TOWARD ORGANIZATIONAL COMMITMENT, JOB SATISFACTION, AND JOB PERFORMANCE: MODERATING ROLE OF VIRTUAL WORK DURING COVID-19 IN UNIVERSITAS ISLAM INDONESIA

Written By:

DEPTA BERLIANTAREST HIRNAWATI

Student Number: 16311054

Approved by:

Content advisor, Januari, 25 2022

Handrio Adhi Pradana, S.E., M.Sc., CHRA.

Language advisor, Januari, 25 2022

Nihlah Ilhami, S.Pd.

THE EFFECT OF LEADER-MEMBER EXCHANGE (LMX) TOWARD ORGANIZATIONAL COMMITMENT, JOB SATISFACTION, AND JOB PERFORMANCE: MODERATING ROLE OF VIRTUAL WORK DURING COVID-19 IN UNIVERSITAS ISLAM INDONESIA

By:

Depta Berliantarest

Hirnawati Student

Number: 16311054

Board of Examiners,

Handrio Adhi Pradana, S.E., M.Sc.,

CHRA. NIK: 153110101

Andriyastuti Suratman, S.E., M.M.,

CHRMP NIK: 123110101

Yogyakarta, 11 March 2022

International Program

Faculty of Business and Economics Universitas Islam Indonesia

(Prof. Jaka Sriyana, S.E., M.Si., Ph.D)

DECLARATION OF AUTHENTICITY

Here in I declare the originality of the thesis, I have not presented anyone else's work to obtain my university degree, not have I presented anyone else's words, ideas or expression without acknowledgement. All quotations are cited and listed in the bibliography of the thesis.

If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequence.

Yogyakarta, 25 Januari 2022

Depta Berliantarest Hirnawati

ACKNOWLEDGEMENT

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

السَّلَامُ عَلَيْكُمْ ورَحْمَةُ اللهِ وبَرَكَاتُهُ

Praise and gratitude for the writer to pray for the presence of Allah SWT for all the monotheism, mercy and inayah, as well as prayers and greetings the author congratulates the great king of Muslims, the Prophet Muhammad SAW along with his family and friends so that the author can have a life guideline as written in the contents of the holy book Al-Qur'an.Alhamdulillahi Rabbil 'Alamin, the author offers prayers and gratitude for completing the final project (thesis) entitled "The Effect of Leader-Member Exchange (LMX) toward Organizational Commitment, Job Satisfaction, and Job Performance: Moderation Role of Virtual Work During COVID-19 in Islamic University of Indonesia".

In the preparation of this thesis there are not a few obstacles that the writer faces, but the writer realizes that the fluency in the preparation of this thesis is also thanks to the prayers, assistance and guidance of other parties. Therefore, the authors would like to thank:

1. Allah SWT who has given grace, guidance, and health so that the author can complete this final project.
2. Prophet Muhammad SAW, for being a great figure as the Last Prophet and making this life become better than before.
3. My father, Isdiyanto Hirnawan, my role model, who supports me as well with whatever I do and supplies me with the financial support I need.
4. My mother, Susilawati, a greatand strong woman who always supports me whatever I do, and loved me with all her heart.
5. Thank you to my all-time favorite person and my supporting system, Rizki Al Fasha for helping me through all the ups and downs and not let pandemic demotivate me from writing my thesis.
6. My little brother Riegel Antarest who has not supported nor helped me in anyway.
7. All of IP Management 2016 students; Aji, Dody, Hanip, Farhan, Jisnu, Sofia, Sabrina, Chelsy, Fira, Robih, Adel, Elvira, Hilda, Aisyah, Dinda, Ditto, Zada, Giska, Utari, Ifna, Feriandi, Lita and Rizka. Thank you for 4 years we spent together as a friend, enemies in finding score, and cheerfulness you spread to me.
8. Ibu-ibu Pengajian Al-Boshe, Khayis with all her positivity, Srisanti the lazy one, and Cipril the troublemaker. Thank you, guys, for disturbing me while I do my thesis.
9. All members of Wadidaw, Ibu Widya, Cicik Seline, Delvira aka Del Fire, and Ibu negara Yumi. Also, all members of Kontrakan Gaul, Kak Ravi, Kak Dissa, Niko, Abi, and also duo jamet Anas-Dany. Thank you, good peeps.
10. OMT family Salam Rimba Aum, the experiential learning that you gave and taught me were so useful for me to become the best version of myself. Thank you for the

knowledges and all experiences, my seniors and friends; Mas Budi, Mas Atmadi, Mas Anas, Mas Kus, Mas Tris, Khalla Okta, Rafsanjani Anantori, Safira Septananda, Faiq Jauhar, Thoriq Fattah, Muhammad Dichi Chandra, Dody Permadi, Arienda, Hilmy Ammar Rafi, Patria Dani Wijaya, Muhammad Adytia, Fajar Prabowo, Aulia Fauzia, Atika Dyah, Nanninndra, Nasrullah Mazi, Fauzan Nu'man, Reza Prakasita, Helmy Ilham Nugraha, Faris Asyrof and the others I cannot mention one by one since the numbers are too large.

11. All of GK UNISI members, there are so many joys, knowledge I got from our long journeys that we have been through, helping society, and loving nature. It's all amazing.
12. Mr. Anjar Priyono, S.E., M.Si., Ph.D. as the Head of Management Study Program (Bachelor Program).
13. Mr. Abdul Moin, S.E., MBA., Ph.D., CQRM. as the Secretary of Management Study Program, International Program UII.
14. Mr. Handrio Adhi Pradana, S.E., M.Sc., CHRA., as the content advisor who patiently waited for me to complete my revisions and provided me knowledge and suggestions for writers in completing this thesis.
15. Mrs. Nihlah Ilhami, S.pd., thank you for becoming my Language Advisor, wish all the good things will come to you.
16. Lecturers of IP FBE UII, thank you for the knowledge and experience given to me through my journey in this university.
17. Last but not least. Thank you to all cute animals around me, Pascal, Kiwi, Mosi, Lilo, Mochi, Mpus, Kia, and Mango who have disturbed me in the process of completing this final project.

The author realizes that there are still many shortcomings in this final project. Therefore, the authors expect constructive criticism and suggestions, Thank you.

وَ السَّلَامُ عَلَيْكُمْ ورَحْمَةُ اللهِ وبَرَكَاتُهُ

Yogyakarta, 25 Januari 2022

(Depta Berliantarest Hirnawati)

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIXES

THE EFFECT OF LEADER-MEMBER EXCHANGE (LMX) TOWARD ORGANIZATIONAL COMMITMENT, JOB SATISFACTION, AND JOB PERFORMANCE: MODERATING ROLE OF VIRTUAL WORK DURING COVID-19 IN UNIVERSITAS ISLAM INDONESIA

Depta Berliantarest Hirnawati

Student of Management International Program

Faculty of Business and Economics Universitas Islam Indonesia

ABSTRACT

This research examined the influence of Leader Member Exchange (LMX) towards Organizational Commitment, Job Satisfaction and Job Performance as well as the role of Virtual Work as a moderator of LMX towards Organizational Commitment, Job Satisfaction and Job Performance. This research was an explanatory attempt to explain the effects of LMX and if Virtual Work moderates the effects of LMX during the pandemic in the educational industry. This research had a total of 108 respondents that consisted of both academic workers and lecturers from all faculties of Universitas Islam Indonesia including Faculty of; Business and Economics, Law, Medicine, Industrial Engineering, Psychology and Socio-Culture, Islamic Religious Science, Civil Engineering and Planning, Mathematics and Nature. This study was conducted in main campus of Universitas Islam Indonesia which is located in Daerah Istimewa Yogyakarta. The result of this study explained that LMX had a positive and significant effect towards Organizational Commitment, Job Satisfaction and Job Performance. However, researcher found that Virtual Work was only able to positively and significantly moderate the effect of LMX towards Organizational Commitment and was unable to moderate the effect of LMX towards Job Satisfaction and Job Performance.

Keyword: *LMX, Organizational Commitment, Job Satisfaction, Job Performance*

PENGARUH LEADER-MEMBER EXCHANGE (LMX) TERHADAP KOMITMEN ORGANISASI, KEPUASAN KERJA, DAN KINERJA KERJA: MODERASI PERAN KERJA VIRTUAL SELAMA COVID-19 DI UNIVERSITAS ISLAM INDONESIA

Depta Berliantarest Hirnawati

Mahasiswa Internasional Program Menejemen

Fakultas Bisnis dan Ekonomi Universitas Islam Indonesia

ABSTRAK

Penelitian ini menguji pengaruh *leader-member exchange* (LMX) atau pertukaran pemimpin-anggota terhadap komitmen organisasi, kepuasan kerja, dan kinerja kerja serta peranan *virtual work* sebagai moderator LMX terhadap komitmen organisasi, kepuasan kerja, dan kinerja kerja. Penelitian ini merupakan upaya untuk menjelaskan efek LMX dan jika Pekerjaan Virtual memoderasi efek LMX selama pandemi di industri pendidikan. Penelitian ini memiliki total 108 responden yang terdiri dari tenaga akademik dan dosen dari seluruh fakultas di Universitas Islam Indonesia termasuk Fakultas; Bisnis dan Ekonomi, Hukum, Kedokteran, Teknik Industri, Psikologi dan Sosial Budaya, Ilmu Agama Islam, Teknik Sipil dan Perencanaan, Matematika dan Alam. Penelitian ini dilakukan di kampus utama Universitas Islam Indonesia yang terletak di Daerah Istimewa Yogyakarta. Hasil penelitian ini menjelaskan bahwa LMX berpengaruh positif dan signifikan terhadap Komitmen Organisasi, Kepuasan Kerja dan Prestasi Kerja. Namun, peneliti menemukan bahwa Virtual Work hanya mampu memoderasi secara positif dan signifikan pengaruh LMX terhadap Komitmen Organisasi dan tidak mampu memoderasi pengaruh LMX terhadap Kepuasan Kerja dan Prestasi Kerja.

Kata kunci: *LMX, Komitmen Organisasi, Kepuasan Kerja, Kinerja Kerja*

CHAPTER 1

INTRODUCTION

A. Background

Covid-19 a virus that has caused a global pandemic was discovered in late 2019 in China. This virus then started spreading in Indonesia in early 2020. With very little awareness and action towards the virus, this led to a rapid increase in people infected in Indonesia. According to the Worldometer (2021), the first case of Covid-19 was recorded on 2nd March 2020 in Indonesia. Therefore, the Ministry of Health (20th May 2020) issued a national decree including social distancing and Work from Home (WFH).

On the orders of the ministry of health, Indonesia began to implement WFH where the work done by employees of the company began to be done in a virtual way or through internet intermediaries to facilitate the work. This is a concern because the change of work from traditional to modern is considered not easy for some workers. Therefore, according to Gigauri (2020), workers are required to upgrade their knowledge in this digital age to support their work ability through internet. It is necessary in order to meet the demands of work during this pandemic. Furthermore, virtual work, according to Raghuram et al., (2019) is becoming a new normal where workers do work with the help of computers and the internet but between one worker and another worker is separated by distance.

As the Universitas Islam Indonesia issued the Chancellor's Circular, 23 March 2020 currently in the face of the Covid-19 pandemic, online learning is a solution to continue teaching and learning activities and delivering lecture materials. In this online learning, lecturers and students are required to carry out activities by staying at home through commonly used online media such as Google Classroom, Zoom meetings, and other educational platforms. Although teaching and learning activities are conducted online, lecturers and students carry out teaching and learning activities on a day-to-day basis. In addition, the system and administration at Universitas Islam Indonesia are also carried out online from the web site of each faculty that has been made, such as paying tuition fees, registering for tests, correspondence, etc.

From the transition of that system, the question arises over the issue that changes the system of human resource order in an institution, namely how the company can continue to maintain consistency in employee performance while still developing the relationship between superiors and subordinates even through virtual work in order to achieve the expected results.

The relationship between leaders and employees will affect several aspects of the organization, as stated by Golden & Veiga (2005) in the main journals replicated in this study, namely they found that those with high quality relationships, who also worked extensively in this mode, demonstrated the highest levels of commitment, job satisfaction and performance relative to those who worked less extensively in this mode.

According to Terpstra-Tong et al., (2020) LMX is a relational approach to leadership that examines the dyadic relationship between subordinates (members) and their immediate supervisors (leaders). Therefore, in an organization, LMX are factors that can maintain relationship inside organization. Following this paragraph are several variables that are impacted by the implementation of LMX in an organization.

First, Terpstra-Tong et al., (2020) stated that LMX affects commitment. According to Scales & Quincy Brown (2020) organizational commitment is the psychological attachment an employee possesses towards an organization; the level of organizational commitment an employee has determines the attachment they have towards the organization.

According to Shaikh et al., (2019) there are three aspects of organizational commitment. First, affective commitment that show the personal preference to stay within an organization due to factors such as good salary, better supervisors, position and status, such preference of an organization (Meyer & Allen, 1990). Second, continuance commitment that appears in a person's consciousness on costs and other costs in switching the organization or in other words when employees feel that they need to remain in their organization because they fear that the amount of salary and benefits wouldn't improve if they move to another organization. Third Normative commitment that show employee's feeling of a sense of responsibility towards their organization; they feel that the commitment is correct and real.

From the three aspects of organizational commitment stated above, affective commitment become the aspect that is most appropriate and relatable for this study. The reason being that is they mentioned about better supervisor and this research is about relationship between supervisor and subordinates.

Second, according to Akdol & Arikbog (2017) LMX can also affects to job satisfaction positively. This study also showed that being in a group that has a high quality LMX is a rewarding and advantageous position to be in because leaders with high quality LMX would delegate decisions to members more often leading to higher Job Satisfaction. Also, through building the communication, leaders and employees would have good relationship that will increase the job satisfaction (Supriyanto et al., 2021). This research also showed that the relationship between in-group members and leaders results in higher satisfaction because they are willing to perform specific tasks and help others, resulting in mutual exchange behavior that leads to job satisfaction.

Meanwhile, according to Eliyana A. et al., (2019) job satisfaction can be described as a measure of how much employees are satisfied with their work. Job satisfaction is a positive feeling that is formed from the employee's assessment of his work based on employee perceptions of how well his job is done, which means that what is obtained in work meets what is considered important (Luthans, 2007).

Third, in a high-quality exchange relationship both partners hold congruent perceptions regarding the work environment (Djurkovic, et al, 2016), or in other words, both parties must have a mutual perception in order to have a high quality LMX. This research also states that having mutual perceptions enables subordinates to have an idea of expected reward from the leader which results in subordinates to act according to how leaders or managers expect them to by exerting higher effort to achieve better performance.

According to Priyadharsan & Nithiya (2020), job performance is something that is reflected in the achievements and contributions of workers in practical and measurable terms. In other words, job performance could be defined as something that is based on the realization of either individual level, group level, or corporate level goals.

The virtual work phenomenon, which will be used in this study as a moderating variable, has an important role in LMX. Virtual work, which is a current phenomenon, is carried out with communication technology are often used for work continuity. Pratiwi et

al., (2020) said that organizational commitment is increasing among employees during virtual work. Then, it also conducted research on employees who did virtual work and found organizational commitment to have a negative relationship on LMX during virtual work.

According to Zulfa N. F. I. (2021), harmonious relations between superiors and subordinates will create a large and favorable LMX impact on job satisfaction during virtual employment. With the harmony created in the relationship between superiors and subordinates, it will lead to trust that is reflected in the responsibilities that are fulfilled by the workers. On the other hand, according to Wolor W. et al. (2020) current technology improvements also can be best leveraged in the form of virtual work, where employees do not need to interact face-to-face in order to do their tasks. As a result, working virtually will help employees and companies to continue to achieve optimal performance.

Therefore, this study aims to investigate the direct effect of LMX towards organizational commitment, job satisfaction and job performance. In addition, this study also aims to investigate if virtual work is able to moderate the relationship between LMX and organizational commitment, LMX and job satisfaction, and LMX and job performance at the Universitas Islam Indonesia in dealing with the COVID-19 pandemic.

B. Problem Formulation

1. Does LMX have positive impact to organizational commitment?
2. Does LMX have positive impact to job satisfaction?
3. Does LMX have positive impact to job performance?
4. Is virtual work able to moderate the relationship between LMX and organizational commitment?
5. Is virtual work able to moderate the relationship between LMX and job satisfaction?
6. Is virtual work able to moderate the relationship between LMX and job performance?

C. Research Purposes

The purposes of this research are:

1. To investigate the positive impact of LMX to organizational commitment.
2. To investigate the positive impact of LMX to job satisfaction.

3. To investigate the positive impact of LMX to job performance.
4. To investigate the role of virtual work as a moderator between the LMX and organizational commitment.
5. To investigate the role of virtual work as a moderator between the LMX and job satisfaction.
6. To investigate the role of virtual work as a moderator between the LMX and job performance.

D. Benefit

1. Theoretical Benefit

This research helps future researchers in providing additional literature on leader-member exchange in a virtual working condition. Specifically, it will give broaden understanding on how leader-member exchange in a virtual working condition affects organizational commitment, job satisfaction, and job performance during COVID-19 pandemic.

On the other hand, this research would contribute to the growth of leadership theory that focuses on LMX in human resources management that has a direct relationship towards organizational commitment, job satisfaction, and job performance in a virtual working condition.

2. Practical Benefit

This research could be used as a reference for the related industry to improve or change their human resource management system according to the result of this research that is based on the Covid-19 working condition. In addition, this research could be used to establish the difference in outcomes of workers with different virtual work intensity. Finally, this research could be used as it would investigate the major role of leader-member exchange in a virtual working condition and investigate what actions to be taken in the future doe to external factors such as a pandemic.

CHAPTER 2

THEORETICAL REVIEW

A. Leader Member Exchange (LMX)

1. Definition of Leader Member Exchange (LMX)

According to Dhammika (2016) this LMX theory forms a process of how leaders determine roles and expectations for their subordinates, a process through which leaders determine roles and expectations related to their subordinates.

Gooty J. et al., (2019) stated that Leader-member exchange was first cast as the quality of the exchange relationship between a leader and follower and studied from a role theory perspective. This initial research emphasized job tasks and social exchanges between leader and follower ranging from purely task-based interactions (role-taking phase in role theory) to high-quality job tasks and social exchanges in more improved relationships. The research also stated the exchange of such LMX interactions has received the most research attention lately due in part to theory and empirical research suggesting the priority of social exchange in LMX. The core principle in such a social exchange view of LMX is mutualism and remains in line with early conceptualizations of social exchange theory itself that was built on the concept of comparable give and take of resources in other sectors. Regardless, this focuses on social exchanges in LMX, and the vast accumulated empirical literature in this domain, several key issues have surfaced in this domain as well.

According to Byun G. et al., (2017) LMX prioritizes the quality of the relationship between leaders and members, so LMX can focus on building trust. Therefore, trust in the organization can be built by implementing LMX that strengthens the relationship between leaders and members. LMX posits that leaders develop relationships of varying quality with members through a process of role creation. Exchanging a large amount of implicit and explicit resources and support is beneficial for the formation of positive work attitudes of employees and affective commitment.

From the previous definitions stated, researcher would define LMX as a process that explores how leaders and members develop a two-way relationship that would

contribute to either growth or limit personal and team development as high-quality interactions would contribute to growth and low-quality interactions would contribute to lack of trust.

2. Aspects of Leader Member Exchange (LMX)

Indicators of Leader Member Exchange Variables According to Graen and Uhl-Bien (1995) there are three indicators of leader member exchange, namely:

1. Respect, the relationship between superiors and subordinates cannot be formed without mutual respect for the abilities of others.
2. Trust, without mutual trust, the relationship between superiors and subordinates will be difficult to form.
3. Obligation, the influence of obligations will develop into a working relationship between superiors and subordinates.

3. Factors affect Leader Member Exchange (LMX)

Indicators of Leader Member Exchange Variables According to Graen and Uhl-Bien (1995) there are three indicators of leader member exchange, namely:

1. High job satisfaction. A good relationship with superiors will make employees comfortable and satisfied in doing their jobs.
2. Organizational commitment. The effect of a good relationship between superiors and subordinates is also found in the high organizational commitment of employees.
3. Organizational citizen behavior (OCB). Employees take work initiative initiatives without boss orders when their relationship with superiors is good.
4. Objective performance appraisal. Bosses who have good relations with employees will provide an objective, not subjective, performance appraisal.
5. Decreased intention to leave the company. The low intention to leave the company is one of the effects of a positive leader member exchange.

B. Organizational Commitment

1. Definition of Organizational Commitment

Asrar-ul-haq et al., (2017) stated that Organizational commitment could be defined by the affiliation and involvement of an employee with his/her organization. Carolina M., et al., (2016) emphasize that the organizational commitment is a psychological relation that is maintained between an employee and organization.

Bhatti, M. H., et al., (2016) defined that organization commitment is linked to the employee's emotional connection, identification with, and relationship in the organization. Primarily, measuring organizational commitment is an evaluation of the resemblance between an individual's own principles and beliefs and those of the organization (Swailes, 2002).

2. Aspects of Organizational Commitment

According to Shaikh et al., (2019), there are three aspects of organizational commitment:

1. Affective commitment. According to Meyer & Allen (1990), the bond and recognition within the organization that increases emotional relationship is called affective commitment. The personal preference to stay within an organization due to factors such as good salary, better supervisors, position and status, such preference of an organization is called Affective commitment. The reality of similar values of organization and the employee will give a sense of positive integration.

2. Continuance commitment. Related to as the type of commitment that appears in a person's consciousness on costs and other costs in switching the organization or in other words when employees feel that they need to remain in their organization because they fear that the amount of salary and benefits wouldn't improve if they move to another organization. Demographic factors such as age, qualifications and the length of time spent in an organization are the determinants of continuance commitment. These factors have a moderating impact on continuance commitment.

3. Normative commitment. Can be defined by the employee's feeling of a sense of responsibility towards their organization; they feel that the commitment is correct and real. Employees usually try to compensate organization for the extraordinary benefits that they enjoy by staying committed to their organization; such commitment is called normative commitment.

In this study, researcher will be focusing only on affective organizational commitment. The reason being is because according to Meyer & Allen (1990), personal preference to stay within an organization due to factors such as good salary, better supervisors, position and status. Thus, as better supervisor is the main subject of this research, affective commitment is most suitable for the research topic.

3. Factors affect Organizational Commitment

Saha R. (2016) age, gender, educational qualification and marital status are the major factors affecting organizational commitment. Allen & Meyer (1990) said that job satisfaction is more with old workers because of their attitudinal commitment. Some studies suggested that women are more committed towards organization than men, although the difference is minor. Different types of organizational commitment include commitment towards organization, commitment towards job, commitment towards customers, commitment towards superiors and commitment towards management. More number of studies focuses on factors influencing organizational commitment. Major influencing factors of organizational commitment include:

1. Job satisfaction
2. Leadership style
3. Organization climate

C. Job Satisfaction

1. Definition of Job Satisfaction

Carolina M., et al., (2016) stated that job satisfaction is how an employee feels about the organization or about aspects of it. It is about how much one likes (satisfaction) or dislikes (dissatisfaction) their work (Siqueira & Gomide, 2004). The illustration job

satisfaction portrays is how much a person experiences pleasure in the organizational context. It is the indication of the connection between individual personal interests with what is given by the organization (Baotham et al., 2010).

Asrar-ul-haq et al., (2017) quoted Job Satisfaction is a positive state of emotion resulted by one's work experience. It is also the degree to which an employee is satisfied with the rewards (intrinsic motivation) against their services for the organization (Statt, 2004).

Dhamija et al., (2019) quoted job satisfaction is the suitable or unsuitable from employees' perspective to make over their work-related opinions when there is a relation between job characteristics and wants of the employees.

2. Aspects of Job Satisfaction

According to Luthans (2007) there are a number of factors that influence job satisfaction:

1. Wages. Wages are significant factor in job satisfaction. Money does not only help people achieve their basic needs but also plays a role in providing a level of satisfaction needs.
2. The Job Itself. Some of the most important material from satisfying work found by this survey includes interesting and challenging work, jobs that are not boring, and jobs that provide status.
3. Promotion. Promotional opportunities seem to have different effects on job satisfaction because promotions take a number of different forms and have various accompanying rewards.
4. Supervision. There are two dimensions of supervision style that affect job satisfaction. One of them is employee-centering. It is measured by the degree to which a supervisor takes a personal interest in employee's welfare. Another dimension is participation or influence, as illustrated by managers who allow people to participate in decisions that affect their own work.
5. Working group. The condition (nature) of work groups will have an effect on job satisfaction. Friendly, cooperative colleagues are a simple source of job satisfaction to individual employees. Working groups function as a source of

support, comfort, advice, and assistance for individual workers. A good work group makes the work more fun.

6. Working conditions. Working conditions are another factor that has a simple effect on job satisfaction. If working conditions are good (clean, attractive environment, for example), it will be easier for individuals to carry out their work. If working conditions are very poor, employees would find it difficult to get things done.

4. Factors affect Job Satisfaction

From Luthans (2007), he states that there are 5 factors that affect job satisfaction:

1. Satisfaction with payment of salaries or wages are significant but are complex and multidimensional factors in job satisfaction.
2. Satisfaction with the job itself, jobs that provide satisfaction are interesting and challenging jobs, jobs that are not boring, and jobs that can provide status.
3. Satisfaction with colleagues, working groups will have an effect on job satisfaction. Friendly and collaborative coworkers are a source of job satisfaction for individual employees.
4. Satisfaction with promotion, opportunities promoted appear to have a diverse influence on job satisfaction because promotions can be in different forms and vary in rewards.
5. Satisfaction with work supervision, supervision is another source of job satisfaction that is quite important too.

D. Job Performance

1. Definition of Job Performance

According to Al-Omari, K., & Okasheh, H. (2017), they stated that Job performance could be identified as activities or behaviors that are carried out in achieving an organization's objectives. Performance is the result of work of an individual or team in an organization at a particular time that shows how well the individual or team reach the expected job in target of organization's goal achievement. Several variables could impact an employee's job performance such as performance expectancy, equipment, meaningful

work, standard operating procedures, physical work environment reward for good or bad systems, feedback on performance, and also knowledge, skills and attitudes (Stup, 2003).

Jalagat (2016) defined that Job performance could be defined as the output that a person has contributed to the organization regarding his behavior to be involved in, and which the organization may categorize as productive or unproductive. Positive performance can be accomplished when an employee meets the expectation of the organization and are applicable to the company's success.

Ghani, et al., (2016) defined job performance as an employee's contribution to accomplish organizational goals. Job performance is one of the crucial dependent variables and has been studied for many years. Recent studies show that leaders' characteristics influence performance. Job performance has been described as the expected value from employees' behaviors achieved over the course of a specific period of time. Employees' job performance will impact the outcomes of the organization. Job performance also guarantee the organization is operating well and it contains of the knowledge and skills that are able to assist the employees to perform several forms of activities.

2. Aspects of Job Performance

Indicators for individual employee performance are six indicators, according to Robbins, S. P. (2001), namely:

1. Quality of work. Measured by employee perceptions of the quality of work produced and the perfection of tasks towards the skills and abilities of employees.
2. Quantity. The amount generated is expressed in terms such as the number of units, number of cycles of activities completed.
3. Timeline. The activity level is completed at the beginning of the stated time, seen in terms of coordination with the output results and maximizing the time available for other activities.
4. Effectiveness. The level of use of organizational resources (energy, money, technology, raw materials) is maximized in order to increase the yield of each unit in the use of resources.

5. Independent. Level of independence of an employee who will later be able to carry out his work function
6. Work commitment. Where employees have a work commitment to the organization and employee responsibilities to the office.

3. Factors affect Job Performance

According to Mangkunegara A. P (2008), there are two things that affect performance:

1. Ability Factor. Psychologically, an employee's ability consists of potential abilities and reality abilities in terms of employees who have adequate education for the position as well as the skills possessed in doing work, then it will be easier to achieve the expected performance so as to cause a sense of satisfaction with the work that has been done.
2. Motivation Factor. Employee attitudes shape motivation when they are confronted with situations that need them to attain specific objectives. Motivation is the purpose of developing one's mentality so that he can deal with everything with a strong sense of encouragement in order to meet work goals and take advantage of and build safe and comfortable working environments.

E. Virtual Work

1. Definition of Virtual Work

Virtual work, according to Meil & Kirov (2017), can be defined as labor performed using various sorts of digital technologies. It could also be labor that creates content, which is then transferred to digital media or used in digital technology. It could also be labor generated by labor that is mediated by digital media or technology.

According to Humala (2017), "virtual work" refers to work done by people in various geographical places who utilize digital technology to manage business operations and "virtuality" to enable enterprises to collaborate with customers, users, and interest groups.

The introduction of new organizational types, according to Guinailu and Jordan (2016), provides firms with better flexibility. The so-called "virtual work teams," which

are defined by the vast dispersal of their members and the use of technology, are particularly fascinating among the new organizational structures.

2. Aspects of Virtual Work

In line with this, research by Ratcheva, V., & Vyakarnam, S. (2001), regarding the degree of team virtuality, reveals that a team can become a virtual team if there are three components, namely:

1. Geographic and location differences
2. Organizational differences/organizational divisions
3. Time difference.

According to Martinez-Amador, J. (2016), there are two indicators in virtual working that includes:

1. Work location enjoyment is considered as a measurement of self-reported intrinsic motivation.
2. Work location stress is considered to be a negative predictor of self-reported intrinsic motivation.

3. Factors affect Virtual Work

According to Yahya A., et al (2016) Virtual work layouts may cause some organizational difficulties such as maintaining remote leadership, managing cultural differences, and developing trust relationships among the teams. Other challenges suggested that global virtual teams are required to deal with problems such as communication difficulties, decreased cohesion, and high level of conflicts among teams. In addition, facing technological issues such as adaptation of employees in regular use of communication tools as another challenge that faces global virtual teams. Those challenges stated may cause a threat to the performance of any global virtual teams. However, the challenges can be more noticeable in support teams where solving customers' technical problems is naturally complex and challenging.

Solving problems in a virtual work environment involves communication with remote customers and working together with other global virtual teams, which creates a new layer of challenges to support teams. Customers and support teams have to work together to make the problem-solving process succeed. Leaders of support teams need to

be able to handle the difficulties of distributed settings to sort technical problems and satisfy their customers. Emerging factors affecting global virtual team performance; factors identified include communication tools, togetherness and collaboration, leadership, trust, location of team members and size of team.

120 professionals in high-technology telecommunication industry took part in a survey to reveal the significance of factors affecting global virtual team performance. The findings showed that support professionals recognized reliable communication tools and unity among team members as more significant performance factors than leadership. A survey was done to decide the factors that influence global virtual teams. Research results showed that leadership and creating trust is first step in the early stages of the global project.

F. PREVIOUS STUDY

1. Relationship between LMX and Organizational Commitment

Relationship between LMX and Organizational Commitment					
No	**Title and Researcher**	**Method**	**Variable**	**Sample**	**Research Result**
1.	Pengaruh Leader-Member Exchange terhadap Perilaku Kerja Inovatif pada Karyawan PT X (Aulia, V. A. O., 2019)	Quantitative	Independent variable: LMX Dependent variable: Perilaku kerja inovatif	Probability sampling, 255 employees	There is an influence of leader-member exchange on innovative work behavior of employees of PT X. The direction of influence given is positive, which means, the higher the leader-member exchange, the higher the innovative work behavior of employees of PT. X

2.	Leader-member exchange, sales performance, job satisfaction, and organizational commitment affect turnover intention (Li, L., Zhu, Y., & Park, C., 2018)	Quantitative	Independent variable: LMX Mediating variable: Sales performance, job satisfaction, organizational commitment Dependent variable: Turnover intention	Survey. 228 salespersons	LMX had a direct and significantly positive relationship for organizational commitment.
3.	The Correlation between Leader–Member Exchange and Organizational Commitment among Spanish Registered Nurses: The Moderating Role of Sex and Hospital Size (Lopez-Ibort et al., 2020)	Quantitative	Independent variable: LMX Moderating variable: Empowerment, perceived organizational support, leader-leader exchange Dependent variable: Commitment	Survey. 1087 nurses	There was a positive correlation between the quality of the leader–member exchange and commitment.
4.	Analisa Pengaruh Leader Member Exchange Terhadap Organizational Commitment: Studi Pada Karyawan Hotel X, Surabaya (Wijaya & Siswono, 2020)	Causal Quantitative	Independent variable: LMX Dependent variable: Affect, Loyalty, contribution, professional respect as dimension of organizational commitment	Non probability sampling, purposive sampling. 31 respondents	LMX have positive and significant effect on organizational commitment.

Based on previous studies, researchers found that the quality of LMX has a significant and positive impact on organizational commitment. Similarly, this study was aimed to investigate if LMX has a significant and positive impact towards organizational commitment in Universitas Islam Indonesia.

On the other hand, the different between previous studies is that the researchers conduct the study for hospitality, medical, and marketing industry. Whereas, this study

aimed at investigating LMX toward organizational commitment in educational industry where the target subject are lecturers and academic workers.

2. Relationship between LMX and Job Satisfaction

Relationship between LMX and Job Satisfaction					
No	**Title and Researcher**	**Method**	**Variable**	**Sample**	**Research Result**
1.	Job Satisfaction, Leader-Member Exchange, and Organizational Citizenship Behavior among Motorcycle Salespersons in Jakarta (Baskoro B., et al. (2021)	Quantitative	Independent variable: Leader-member exchange Intervening variable: Job Satisfaction Dependent Variable: Organizational Citizenship Behavior	Random sampling-based questionnaire. 300 respondents.	This research had the significant effects to job satisfaction.
2.	Factor Influencing Employee Performance: The Role of Leader-Member Exchange and Job Satisfaction (Supriyanto et al., 2021)	Quantitative	Independent variable: Leader-member exchange Intervening variable: Job satisfaction Dependent variable: Employee Performance	108 employees	LMX has a positive and significant effect on job satisfaction.
3.	Pengaruh Leader-Member Exchange (LMX) terhadap Kinerja Karyawan melalui Kepuasan pada PT. Berlian Jasa Terminal Indonesia (Zulfa N. F. I., 2021)	Causal quantitative	Independent variable: LMX Dependent variable: Employee performance Intervening variable: Job satisfaction	Probability sampling. 156 employees	This research shows the trust between superiors and subordinates indicates that LMX has a positive and significant effects on job satisfaction.
4.	Analisa Pengaruh Leader-member Exchange Terhadap Kepuasan Kerja Karyawan Melalui	Explanative quantitative	Independent variable: LMX Mediating variable: Perceived	Nonprobabilit y sampling, purposive sampling.	LMX has positive effects on job satisfaction, but it is insignificant

	Perceived Organizational Support Sebagai Variabel Mediasi Di Restoran De Boliva Surabaya. (Gutama G. et al., 2015)		organizational support Dependent variable: Job satisfaction	32 respondents.	

According to the previous studies, researchers found that the quality of LMX has a significant and positive impact on job satisfaction. Similarly, this study was aimed to investigate if LMX has a significant and positive impact towards job satisfaction in Universitas Islam Indonesia.

On the other hand, the different between previous studies is that the researchers conduct the study for culinary, logistics, and marketing industry. Whereas, this study aimed at investigating LMX toward job satisfaction in educational industry where the target subject are lecturers and academic workers.

3. Relationship between LMX and Job Performance

Relationship between LMX and Job Performance					
No	**Title and Researcher**	**Method**	**Variable**	**Sample**	**Research Result**
1.	Factor Influencing Employee Performance: The Role of Leader-Member Exchange and Job Satisfaction (Supriyanto et al, 2021)	Quantitative	Independent variable: Leader-member exchange Intervening variable: Job satisfaction Dependent variable: Employee Performance	108 employees	This research shows that there is a significant influence between LMX and performance through the good relationship between employer and employees.
2.	Leader-member Exchange and Performance: A Meta-analytic Review (Martin et al., (2014)	Quantitative	Independent variable: LMX Dependent variable: Performance	146 respondents	The main findings show that LMX has a moderate to large effect size on several performance indices (positive with task and citizenship performance and

					negative with counterproductive performance), as well as a moderate positive effect size on objective performance.
3.	Leader-member Exchange, Job Satisfaction, Employee Engagement, and Employee Performance (Suharnomo & Kartika, 2018)	Quantitative	Independent variable: Leader-member Exchange Intervening variable: Job Satisfaction, Employee Engagement Dependent variable: Employee Performance	105 respondents	LMX was found significantly affect job satisfaction, and job satisfaction was found positively affect employee performance. It also followed by LMX that has significant relationship on the performance of employees.

According to the previous studies, researchers found that the LMX has a significant and positive impact on job performance. Similarly, this study was aimed to investigate if LMX has a significant and positive impact towards job performance in Universitas Islam Indonesia.

On the other hand, the different between previous studies is that the researchers conduct the study for hospitality and banking industry. Whereas, this study aimed at investigating LMX toward job satisfaction in educational industry where the target subject are lecturers and academic workers.

4. Relationship between LMX and Organizational Commitment with Virtual Work as the Moderating

Relationship between LMX and Organizational Commitment with Virtual Work as the Moderating					
No	**Title and Researcher**	**Method**	**Variable**	**Sample**	**Research Result**
1.	Dampak Kompensasi dan LMX (Leader-Member Exchange) terhadap Kepuasan Kerja serta Implikasinya	Partial Least Square (PLS) quantitative	Independent variable: Compensation and LMX	30 employees	Directly, the results show LMX, compensation, and job satisfaction can increase the

	pada Komitmen Organisasi (Setawarman et al., 2021)		Dependent variable: Job Satisfaction, Organizational Commitment		organizational commitment.
2.	Hubungan Subjective Well-Being dengan Komitmen Organisasi pada Pekerja yang Melakukan WFH di Masa Pandemi Covid-19 (Pratiwi et al., 2020)	Quantitative	Independent variable: Subjective well-being Dependent variable: Organizational commitment	Purposive sampling, Snowball. 75 employees	The results are that there is a significant relationship that affects organizational commitment to workers who do WFH (work from home).

Based on previous study, researchers found that virtual work moderating the relationship between LMX towards organizational commitment who doing the WFH (work from home) or. Similarly, this study was aimed to investigate if the virtual work moderating relationship between LMX and organizational commitment in Universitas Islam Indonesia.

On the other hand, the different between previous studies is that the researchers conduct the study for the company level. Whereas, this study aimed at investigating LMX toward job satisfaction in educational industry where the target subject are lecturers and academic workers.

5. Relationship between LMX and Job Satisfaction with Virtual Work as the Moderating

Relationship between LMX and Job Satisfaction with Virtual Work as the Moderating					
No	**Title and Researcher**	**Method**	**Variable**	**Sample**	**Research Result**
1.	The Impact of Extent of Telecommuting on Job Satisfaction: Resolving Inconsistent Findings (Golden & Veiga, 2005)	Quantitative	Independent variable: Telecommuting Intervening variable: Job discretion Dependent variable: Job satisfaction	Random samples. 321 employees	Their findings show an association between levels of telecommuting and job satisfaction, with satisfaction appearing at higher levels of telecommuting more broadly. Moreover, moderating this

					relationship, suggests that some job attributes play an important and uncertain role.
2.	Pengaruh Leader-Member Exchange (LMX) terhadap Kinerja Karyawan melalui Kepuasan pada PT. Berlian Jasa Terminal Indonesia (Zulfa N. F. I., 2021)	Causal quantitative	Independent variable: LMX Dependent variable: Employee performance Intervening variable: Job satisfaction	Probability sampling. 156 employees	This research indicates that leader-member exchange has a positive and significant effect on job satisfaction because there is a trusting relationship between superiors and subordinates.

Based on previous study, researchers found that virtual work moderating the relationship between LMX towards job satisfaction. Similarly, this study was aimed to investigate if the virtual work moderating relationship between LMX and job satisfaction in Universitas Islam Indonesia.

On the other hand, the different between previous studies is that the researchers conduct the study for the logistic industry. Whereas, this study aimed at investigating LMX toward job satisfaction in educational industry where the target subject are lecturers and academic workers.

6. Relationship between LMX and Performance with Virtual Work as the Moderating

Relationship between LMX and Performance with Virtual Work as the Moderating					
No	**Title and Researcher**	**Method**	**Variable**	**Sample**	**Research Result**
1.	Pengaruh Leader-Member Exchange (LMX) terhadap Kinerja Karyawan melalui Kepuasan pada PT. Berlian Jasa Terminal Indonesia (Zulfa N. F. I., 2021)	Causal quantitative	Independent variable: LMX Dependent variable: Employee performance Intervening variable: Job satisfaction	Probability sampling. 156 employees	The harmonious relationship between superiors and subordinates has positive affects to performance.

2.	The Effectiveness of Virtual Work to Keep Achieving Optimal Performance Amid the Covid-19 Virus Outbreak (Wolor W. et al., 2020)	Qualitative	Independent variable: Virtual Work Dependent variable: Performance	Sample size not stated	In this study the researcher revealed that if the company can maximize the application of virtual work, workers can provide the best performance for the company in helping them achieve their goals.

Based on previous study, researchers found that virtual work moderating the relationship between LMX towards job performance. Similarly, this study was aimed to investigate if the virtual work moderating relationship between LMX and job performance in Universitas Islam Indonesia.

On the other hand, the different between previous studies is that the researchers conduct the study for the logistic industry. Whereas, this study aimed at investigating LMX toward job performance in educational industry where the target subject are lecturers and academic workers.

G. RESEARCH FRAMEWORK

Based on theoretical studies and some previous literature, a framework of research concepts related to variable LMX, organizational commitment, job satisfaction, job performance, and virtual work as figure 1.

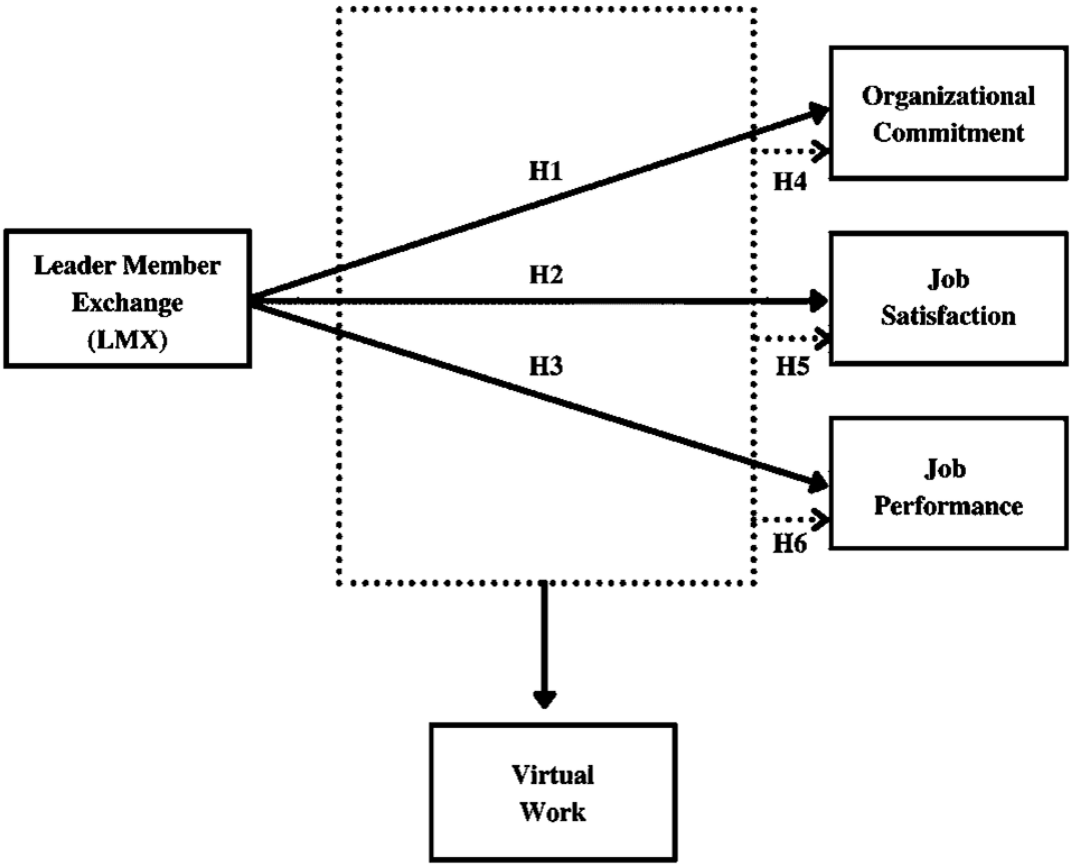


Figure 1. Research Framework

H. HYPOTHESIS

1. Relationship between LMX and Organizational Commitment

Aulia, V. A. O. (2019) however, along with the development of the research conducted, many positive impacts were found from the high quality of LMX on the company. These impacts include lower turnover rates, higher organizational commitment, increased employee job satisfaction, and OCB. According to Li et al., (2018) LMX has a significant impact on employees' organizational commitment, trust, and loyalty to their manager, job embeddedness, and organizational citizenship behavior.

López-Ibort et al., (2020) conducted research and confirmed that the quality of the relationship that the supervisor created with the nurse is prior to the nurse's organizational

commitment and identified that the quality of the LMX is positively correlated with organizational commitment. Wijaya & Siswono (2020) in their research say that several dimensions used, such as contribution and professional respect have a significant influence on organizational commitment (refers to the LMX).

Based on the research above, they show that there is positive relationship between leader-member exchange and organizational commitment. This is because high levels of LMX lead to subordinates having higher levels of trust towards their leaders and higher levels of trust enables subordinates to conduct tasks without being skeptical about their leaders and the organization, resulting in improved organizational commitment. Therefore, the researcher will analyze the hypothesis below:

H1: LMX has a positive impact on organizational commitment

2. Relationship between LMX and Job Satisfaction

According to Baskoro B. et al., (2021) job satisfaction is an assessment result or individual affective reaction from his work. Therefore, job satisfaction is the representation of the work achieved by workers. Referring to Akdol & Arikboga (2017) research, it is confirmed that LMX has a positive impact on job satisfaction. Thus, it can be concluded that the more an individual experiences a positive treatment, the more an individual will be satisfied.

Supriyanto et al., (2021) found that the quality of the relationship between leaders and employees or LMX will increase employees' job satisfaction through their communication. If employees have a good relationship with the employer, they tend to establish several privileges such as trust, support, attention, respect and self-recognition. Besides getting job satisfaction creates more opportunities to help the development of the organization.

According to Zulfa N. F. I., 2021 (2021) LMX has a positive and significant effect on employee job satisfaction in the sales department. An increase in the quality of the relationship between superiors causes job satisfaction to increase. Means that if the company maximizes the relationship between superiors and subordinates, it can help the company in increasing satisfaction for workers. This is also supported by research conducted by Gutama et. al (2015) who conducted research on the effect of LMX on

employee job satisfaction who found the results that the variable had a positive and insignificant effect on job satisfaction.

Based on the research above, they show that there is positive relationship between leader-member exchange and job satisfaction. The reason being is that, high quality LMX usually includes better communication and engagement between leaders and subordinates, which leads to subordinates having a more positive feeling. A quality LMX also includes higher recognition, and when subordinates are recognized by their leaders, it creates satisfaction towards their job as an individual would feel like their effort would not go unnoticed. Therefore, the researcher will analyze the hypothesis below:

H2: LMX has a positive impact on job satisfaction

3. Relationship between LMX and Job Performance

Supriyanto et al., (2021) found that LMX is an enhancement in the quality of the leader-member connection that can benefit both parties' (superior and subordinate) work. Therefore, the relationship between superiors and subordinates is needed because it affects how both of them do their work. Meanwhile, according to Audenaert (2016) identified that members who experience high level of LMX tend to act positively by showing improved performance. Likewise, the research from Kim & Woo (2017) confirmed that the LMX theory based on the high-quality relationships between leaders and members can strengthen their performance.

Martin et al., (2014) low LMX relationships are based primarily on the employment contract and involve mainly economic exchanges that focus on the completion of work. On the other hand, high LMX relationships expand beyond the formal job contract where the goal is to enhance follower's ability and motivation to perform at a high level.

Suharnomo & Kartika (2018) identified that LMX has a positive relationship on employee performance. Other than that, Improving the quality of employees becomes an important thing for the company. According to Schaufeli, Salanova, Gonzales-Romá, & Bakker (2002), the high level of LMX can enhance work engagement of employees because employees will be more enthusiastic, dedicating, energizing, and time would have passed so quickly when they work.

From the research above show that association between LMX and job performance are related positively because LMX will create more enthusiasm, dedication, energy, and previous research emphasize that workers are happier as they feel like time have passed quickly when working, which then leads to them achieving higher job performance. As a result, the researcher will investigate the following hypothesis:

H3: LMX has a positive impact on job performance

4. Relationship between LMX and Organizational Commitment with Virtual Work as the Moderating

Setawarman et al., (2021) in their research discussing the impact of LMX on the implications of organizational commitment using an analysis using a partial least squares (PLS) quantitative approach said that the strong role of LMX on organizational commitment. The virtual work phenomenon, which will be used in this study as a moderating variable, has an important role in LMX.

Virtual work, which is a current phenomenon, is carried out with communication technology media such as Zoom and Google Meet which are often used for work continuity. Pratiwi et al., (2020) said that organizational commitment is increasing among employees during virtual work. Then, it also conducted research on employees who did virtual work and found organizational commitment to have a negative relationship on LMX during virtual work.

Organizations have implemented work from home during the pandemic, resulting in lower levels of direct communication and face to face interactions between leaders and members. However, the use of communication technology could compensate low levels of direct and face to face interactions between leaders and members as applications like Zoom and Google Meet allows for real time calls that also enables users to interact using video which would then maintain organizational commitment. Therefore, the researcher will analyze the hypothesis below:

H4: Virtual Work Moderates the positive effect of LMX towards Organizational Commitment

5. Relationship between LMX and Job Satisfaction with Virtual Work as the Moderating

According to research by Golden & Veiga (2005), positive effects may be outweighed by a decrease in work relationships and feelings of isolation. According to this study, the negative impact of increasing isolation and decreased social contacts on relationships with supervisors and coworkers is likely to significantly affect job satisfaction since they are separated from others and away from the office environment. As a result, a high level of LMX would have a beneficial impact on virtual workers' job satisfaction.

According to Zulfa N. F. I. (2021), harmonious relations between superiors and subordinates will create a large and favorable LMX impact on job satisfaction during virtual employment. With the harmony created in the relationship between superiors and subordinates, it will lead to trust that is reflected in the responsibilities that are fulfilled by the workers.

Organizations have implemented work from home during the pandemic, resulting in lower levels of direct interactions between leaders and members in the work place. However, high quality LMX could set up regular virtual meetings whether in groups or individually to assist members that are working from home with their jobs, which could then lead to higher job satisfaction through virtual work. Therefore, the researcher will analyze the hypothesis below:

H5: Virtual Work Moderates the positive effect of LMX towards Job Satisfaction

6. Relationship between LMX and Job Performance with Virtual Work as the Moderating

LMX and employee performance have a relationship with employee performance due to the good relationship between superiors and subordinates and has a relationship of mutual trust and it has a significant positive effect on employee performance (Zulfa N. F. I., 2021). Therefore, LMX and performance has a positive relationship and it occurs because LMX creates trust between two parties.

Current technology improvements, according to Wolor W. et al. (2020), can be best leveraged in the form of virtual work, where employees do not need to interact face-to-face in order to do their tasks. As a result, working virtually will help employees and companies to continue to achieve optimal performance.

Organizations have implemented work from home during the pandemic, resulting in lower levels of direct interactions between leaders and members in the work place. However, high quality LMX could set up regular virtual meetings whether in groups or individually for members to report on the progress of their given jobs. This enables members working from home to feel like their leaders care about their job progress and motivate them to increase their performance to report when having these regular virtual meetings. Therefore, the researcher will analyze the hypothesis below:

H6: Virtual Work Moderates the positive effect of LMX towards Job Performance

CHAPTER III

RESEARCH METHODOLOGY

A. Research Approach

In this study, the authors used quantitative analysis methods, where in this study the authors collected data through questionnaires which were analyzed using SPSS 23 version. In this research, the researcher will utilize poll to acquire the information. Developing valid and reliable questionnaires is essential to reduce measurement error, which is the difference between respondent attributes and survey responses (Meyer & Allen, 1990).

B. Research Object

1. Research Site

This research was conducted at Kaliurang St No.Km. 14,5, Krawitan, Umbulmartani, Ngemplak, Sleman Regency, Special Region of Yogyakarta 55584.

2. Company Background

The Universitas Islam Indonesia is a national private university in Yogyakarta, Indonesia. It was established on 27 Rajab 1364 or on 8 July 1945 as STI by political figures of the day including Dr. Mohammad Hatta, Mohammad Natsir, Mohammad Roem, Wahid Hasyim, and Abdul Kahar Muzakir.

C. Research Variable

1. Independent Variable

Independent variables are variables that affect the dependent variable, either positively or negatively (Sekaran, 2003). The independent variables of this study are Leader Member Exchange (X).

2. Moderating Variable

Moderating variable is a variable that strengthens or weakens the relationship between the independent variable and the dependent variable (Andari, 2008). In this study the moderating variable is Virtual Work (Y).

3. Dependent Variable

Dependent variable is the variable being a primary interest of the research. The researcher's goal is to understand and describe or predict the dependent variable (Sekaran, 2003). In this study, the dependent variables are Organizational Commitment (Z1), Job Satisfaction (Z2), Job Performance (Z3).

D. Operation Variable

All variables in this research used a five-point likert-type scale. According to Ho, G. W. K. (2016) likert-type scales are commonly used among researchers that uses psychometric scales to be used for investigating attitudes and perceptions. The original likert-type scale steps use five ordinal categories such as most disagree, disagree, neutral, agree, and most agree. Researcher will use likert-type scale for all variables in this research. The variables and its components that will be used in this research is as follows:

1. Leader Member Exchange (X)

Indicators of Leader Member Exchange Variables According to Graen and Uhl-Bien (1995) there are three indicators of leader member exchange, namely:

1. Respect, the relationship between superiors and subordinates cannot be formed without mutual respect for the abilities of others.
2. Trust, without mutual trust, the relationship between superiors and subordinates will be difficult to form.
3. Obligation, the influence of obligations will develop into a working relationship between superiors and subordinates

LMX stated above is multidimensional, however Graen and Uhl-Bien (1995) conclude that the dimensions/indicators are highly correlated with each other that it could be grouped into a single measure of LMX. An example of items for LMX is included below:

a. How well does your leader understand your job problems and needs? (How well do you understand)

Not a Bit a Little a Fair Amount Quite a Bit a Great Deal

b. How well does your leader recognize your potential? (How well do you recognize)

Not at All a Little Moderately Mostly Fully

2. Virtual Work (Y)

According to Martinez-Amador, J. (2016), there are two indicators in virtual working that includes work location enjoyment and work location stress. Work location enjoyment is considered as a measurement of self-reported intrinsic motivation. On the other hand, work location stress is considered to be a negative predictor of self-reported intrinsic motivation.

Work location enjoyment items examples are:

a. When I work remotely, I think about how much I enjoy it.

b. I feel it is my choice to work remotely.

An example of work location stress items includes:

a. I feel tense when I work remotely.

b. I anxious when I work remotely.

3. Organizational Commitment (Z1)

Affective commitment according to Meyer & Allen (1990), the bond and recognition within the organization that increases emotional relationship is called affective commitment. The personal preference to stay within an organization due to factors such as good salary, better supervisors, position and status, such preference of an organization is called affective commitment. The reality of similar values of organization and the employee will give a sense of positive integration. Example of affective commitment items are:

a. I would be very happy to spend the rest of my career in this organization.

b. I really feel as if this organization's problems are my own.

c. This organization has a great deal of personal meaning to me.

4. Job Satisfaction (Z2)

According to Murat (2001) job satisfaction has two dimensions that includes intrinsic and extrinsic satisfaction. Intrinsic satisfaction being tasks that make up the job while extrinsic satisfaction are things like work condition, pay, coworker and supervisor. In Murat Hance, M. S. (2001) the items of both intrinsic and extrinsic satisfaction are grouped into one measure. Example of items are:

a. I have good coworkers in this organization.

b. I am satisfied with the achievement I received in this organization.

c. My supervisor and I have a good understanding of one and other.

5. Job Performance (Z3)

According to Koopmans et. al., (2013) job performance consists of three dimensions. The first dimension is tasks performance which is described as an individual performance towards technical and core substantive tasks in his or her job. Second dimension is contextual performance which is described as social and psychological environment, and also behavior that support the organizational core functions. Lastly, counter productive work behavior which is described as a behavior that could damage or negatively impact the well-being of the organization. Example of the three dimensions includes:

1. Tasks performance skill

1. I managed to plan my work so that it was done on time.

2. My planning was optimal

2. Contextual performance skill

a. I took on extra responsibilities.

b. I did more than was expected of me.

3. Counter productive work behavior skill

a. I complain about an important matter at work.

b. I made problems bigger than they were at work.

E. Population and Sample

1. Population

Population is a group of people, or event that the researcher has interest to study (Sekaran, 2003). Based on the data of lecturer directory (2021), the population of this research is consisted of lecturers and academic workers of Universitas Islam Indonesia that amounts 2842 people, including both full and part contract.

2. Sample

Sample is a part of population, and it is gained from the population (Sekaran, 2003). In other words, some, but not all, population elements form the sample. This research uses probability sample because researcher includes all faculties and subject departments and all lecturers and academic workers are allowed to fill the questionnaire. According to Sugiyono (2016) in research where data analysis is using correlation or multiple regression the sample must be 10 times the variable used in the research. Thus, the minimum sample in this research is 50. However, researcher targets the sample to be 100-150 lecturer and academic workers of Universitas Islam Indonesia.

F. Source of Data

1. Primary Data

Primary data are obtained from the firsthand that are related with the purpose of research (Sekaran, 2003). In this research, the primary data will be gathered from questionnaire. The questionnaire will be distributed to the lecturers and academics who teach in the Universitas Islam Indonesia.

2. Secondary Data

Secondary data is the information gathered by someone other than the researcher who conducting the study such as publication, industry analysis, company record, web publications and so on (Sekaran, 2003). The secondary data can be gathered from libraries, companies, and government offices. In this research, the secondary data gathered is the data that support with the research and relevant with the variables.

G. Data Collection Method

In collecting data, the author uses an online questionnaire which is set using Google Form. According to Sekaran (2003), the questionnaire is a list of written questions that will be answered by respondents. The data was collected through primary sources of data. The primary data was collected through the questionnaire, and each point of answer on the questionnaire was determined by using a Likert scale score (Strongly agree [5] and strongly disagree [1]). In addition, to overcome any bias response researcher will not ask for name, and each individual answer will not publicly shared.

To obtain respondents, the authors contacted human resources and general affairs of each faculty at the Universitas Islam Indonesia via email with a format containing a link of questionnaire, cover letter, and thesis proposal to get the acceptance from the faculty dean which will then be forwarded or distributed to the lecturer. and academic workers to fill out the questionnaire. In collecting this data, the author takes two months starting from early September to early November 2021.

H. Instrumental Analysis

1. Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis also known as constrained factor analysis, structural factor analysis, or the measurement model, is a logical method for testing hypotheses about unmeasured sources of variability that cause a collection of scores to be similar (Hoyle, 2012). According to Hair et al., (2003) the minimum number of factor loading is ≥ 0.5 or ideally ≥ 0.7. If there is a value that is still below 0.5, it was removed from the analysis. In this research, CFA focused on internal validity which means, validity method that measure the validity of instrument based on the statistical value in each item of every variable included in the questionnaire that has been distributed using SPSS 23 version.

2. Reliability Test

The reliability of a measure is an indication of the stability and consistency with which the instrument measures the concept and helps to assess the goodness of a measure (Sekaran, 2003). Reliability is the degree of precision or accuracy (error free) which is demonstrated by the research instrument. A questionnaire is considered reliable if the respond from respondent is consistent or stable over time and when the

Cronbach Alpha is > 0.6 (Ghozali, 2013). Thus, items from a variable with Cronbach Alpha <0.6 is considered unreliable.

I. Data Analysis Method

1. Classical Assumption Test

Classical assumption test aims to determine whether the regression model is a linear estimator or not. The classical assumption test consists of three those are;

a. Normality test

Normality test aims to know whether there is a barrier or not in the variable regression (Ghozali, 2013). The normality test aims to test whether in the regression model the dependent variable and the independent variable have a normal distribution or not. A good regression model is a normal or near to normal of the data distribution. This study uses Kolmogorov-Smirnov Test. If the significance is below 0.05, there is a significant difference, and if the significance is above 0.05, there is no significant difference.

b. Multicollinearity

Multicollinearity is a condition in which the independent variables in the regression equation have an influence with each other. Multicollinearity can cause independent variables to explain the same variance in estimating the dependent variable. The way to detect the presence of multicollinearity is to look at the amount of Tolerance Value and Variance Inflation Factors (from the computer output of the SPSS 23). Variables that cause multicollinearity can be seen from tolerance values greater than 0.1 (> 0.1) and VIF less than 10 (Ghozali, 2013)

2. Regression Analysis

According to Sekaran (2003), multiple regression analysis is used if the independent variable is more than one. By computing all of the independent variable at the same time along with dependent variable.

The regression equation which has three independent variables are:

$$Y1 = a + b1Xi$$

$$Y2 = a + b1Xi$$

$$Y3 = a + b1Xi$$

Regression that is used in this research study are;

a. Simple Linear Regression

The regression analysis I is used to find out the direct influence of variable leader-member exchange to; organizational commitment, job satisfaction, and job performance.

$$У = \alpha + \beta\chi$$

Explanation

У = Dependent variable (OC, JS, JP)

α = y intercept

β = Slope

χ = Independent variable (LMX)

b. Multiple Regression Analysis (Interaction)

The regression II analysis is used to find out the direct influence of leader-member exchange to organizational commitment, job satisfaction and job performance with virtual work as the moderating variable.

$$Y1 = a + b1X1 + b4X4 + b5X1*X4 + e$$
$$Y2 = a + b1X1 + b4x4 + b5X1*X4 + e$$
$$Y3 = a + b1X1 + b4x4 + b5X1*X4 + e$$

Explanation

X4 = virtual work

X1*X4 = interaction/moderation effect between LMX and virtual work

B5 – Bn = interaction coefficient of independent variable and interaction variable

E = residual error value

c. Simple Slope

A simple slope will be provided after moderation affect is conducted through SPSS because according to Memon, A. M. et al., (2020) researcher should execute and provide a simple slope diagram for visual inspection of the strength and the direction (negative or positive) of the moderating effect.

J. Hypothesis Test

After understanding the regression model, the next step is testing the hypotheses. The explanation below elaborates the steps in hypothesis test. Researcher will also analyze R-square of each model. According to Yuan K. H., et al (2014), an important aspect of moderation analysis using multilevel model is that it enables us to also calculate R-square when variables are added. Therefore, researcher would analyze R-square value every time a variable is added to the regression model including interaction variable to investigate whether moderation effect occurs in the model.

1. F-test

The step to conduct f-test are below;

1. Define the hypothesis Ho and Ha

   Ho: there is an influence of leader-member exchange towards job performance but not significance.

   Ha: there is an influence of leader-member exchange towards job performance.
2. Determine significance value (a), i.e., a=5% or 0,05
3. Make a conclusion 51
   a. If p> α = Ho is accepted and Ha is rejected, it means there is an influence of leader-member exchange towards job performance but it is not significant.
   b. If p≤ α = Ho is rejected and Ha is accepted, it means there is an influence of leader-member exchange towards job performance.
4. Perform calculations in accordance with the statistical approach used, by using analysis of variance (ANOVA) on SPSS 23.

2. T-test

T- test is done to see if there are any significant differences in the means for two groups in the variable of interest (Sekaran, 2003). T-test is also used to examine the hypothesis, the followings are several steps to examine the hypothesis.

1. Hypotheses Ho and Ha

   Ha: There is an influence of leader-member exchange towards employee's job satisfaction of Universitas Islam Indonesia.

   Ho: There is an influence of leader-member exchange towards job satisfaction but not significance.

2. Determine the significance value (α), that is a=55, or 0,05
3. Make a conclusion:
    a. If p> α = Ho is rejected, which means there is an influence of leader-member exchange towards job satisfaction but not significant.
    b. If p< α = Ho, it means there is a significant influence of leader-member exchange towards job satisfaction.
4. Perform calculations in accordance with the statistical approach used, by using analysis of variance (ANOVA) on SPSS 23.
5. Moderation effects can be categorized as significant when p-value of interaction variable between independent variable and moderating variable < 0.05 and has a positive t-value.

CHAPTER IV

DATA ANALYSIS AND DISCUSSION

This chapter explained about the influence of leader-member exchange (LMX) on organizational commitment (OC), job satisfaction (JS), and job performance (JP). The study also analyzed the effect of leader-member exchange (LMX) on organizational commitment (OC), job satisfaction (JS), and job performance (JP) through virtual work as the moderation.

Based on Sugiyono (2016) theory, where one variable requires a minimum of 10 respondents this research would require a minimum of 50 respondents but researcher targeted 100-150 respondents. The respondents total did not reach 150 but reached 108 respondents and fortunately all data from 108 respondents were able to be used for this research. Therefore, the response rate of this study equal to 72%. In addition, this study was conducted using SPSS 23 version.

A. Descriptive Analysis

Transcribed analysis is an analysis by detailing and explaining the interrelationship of research data in the form of sentences. In this section researcher described the results of a cryptic analysis that covers the characteristics of respondents including the gender of respondents, the age of respondents, the marriage status of respondents, the respondent's duration of UII career, respondent's position in UII, in which faculty the respondents work, and how long the respondent's work intensity.

1. Gender of Respondents

Based on the gender of respondents that was divided into two groups, male and female, the respondent gender is shown in table 4.1.

Table 4.1 Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	61	56,5%	56,5%	56,5%
	Female	47	43,5%	43,5%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.1 it is known that male respondents in this study were amounted to 47 respondents or 43,5% while female respondents were amounted to 61 or 56,5% of the total population of 108.

2. Age of Respondents

The study also grouped respondents by age by distinguishing respondents in several age groups. The results of the respondent's age grouping are as table 4.2.

Table 4.2 Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 - 30	25	23,1%	23,1%	23,1%
	31 - 40	36	33,3%	33,3%	56,5%
	41 - 50	22	20,4%	20,4%	76,9%
	51 - 60	22	20,4%	20,4%	97,2%
	> 60	3	2,8%	2,8%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.2, it can be seen that respondents in this study are mostly aged 31-40 years with the number of 36 respondents or 33,3% of the total respondents.

3. Marriage Status of Respondents

The next grouping of respondents is marriage status of respondents. The results of the respondent's last educational grouping were as table 4.3.

Table 4.3 Marriage Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	18	16,7%	16,7%	16,7%
	Was married (divorce or death)	2	1,9%	1,9%	18,5%
	Married	88	81,1%	81,5%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.3, it is known that most respondents in this study are mostly married and have children the number of 76 respondents or 70,4% of the total respondents.

4. Respondents Educational Background

Researcher also grouped respondents by their educational background. The results of the respondent's educational background show at table 4.4.

Table 4.4 Respondents Educational Background

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	18	16,7%	16,7%	16,7%
	Bachelor	31	28,7%	28,7%	45,4%
	Master	30	27,8%	27,8%	73,1%
	Doctor	10	9,3%	9,3%	82,4%
	SMA	18	16,7%	16,7%	99,1%
	SMP	1	0,9%	,9%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.4, it is known that most respondents in this study are bachelor's degree graduated with number of 31 respondents or 28,7% of the total respondents, and following by master's degree graduated with number of 30 respondents or 27%.

5. Respondents Duration of UII Career

The study also grouped respondents by how long have they worked at Universitas Islam Indonesia. The results are as table 4.5.

Table 4.5 Respondents Duration of UII Career

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 3	15	13,9%	13,9%	13,9%
	3 - 10	32	29,6%	29,6%	43,5%
	11 - 20	29	26,9%	26,9%	70,4%
	21 - 30	18	16,7%	16,7%	87,0%
	> 30	14	13,0%	13,0%	100,0%

	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.4, it is known that most respondents in this study are mostly worked UII for 3-10 years the number of 32 respondents or 29,6% of the total respondents.

6. Respondents Position in UII

The next grouping of respondents is respondent's position in UII whether as a lecturer or academic worker. The results of the respondent's position were as table 4.6.

Table 4.6 Respondents Position in UII

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lecturer	36	33,3%	33,3%	33,3%
	Academic worker	72	66,7%	66,7%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.5 show that the majority of respondents are academic workers with the percentage of 66,7% or 72 respondents.

7. Respondents Work Unit

Researcher also grouped respondents work unit from 8 faculties in UII. The results of the respondent's work unit show at table 4.7.

Table 4.7 Respondents Work Unit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business and Economic	30	27,7%	27,8%	27,8%
	Law	13	12,03%	12%	39,8%
	Islamic Studies	5	4,62%	4,6%	44,4%
	Medicine	20	18,51%	18,5%	62,9%
	Mathematics and Science	14	12,96%	13%	75,9%
	Psychology and Socio-culture	6	5,55%	5,6%	81,5%
	Civil Engineering and Planning	16	14,81%	14,8%	96,3%

	Industrial Technology	4	3,7%	3,7%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.6 show that the majority of respondents are from Business and Economics Faculty with the percentage of 27,7% or 30 respondents, and following by respondents from Medicine Faculty with 20 respondents or 18.51%.

8. Work Intensity of Respondents

For the purpose of investigate the LMX to organizational commitment, job satisfaction, and job performance through virtual work researcher also grouped work intensity of the respondents were as table 4.8.

Table 4.8 Respondents Work Intensity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	A day in a week	12	11,1%	11,1%	11,1%
	Two days in a week	15	13,9%	13,9%	25,0%
	Three days in a week	17	15,7%	15,7%	40,7%
	Four days in a week	11	10,2%	10,2%	50,9%
	Five days in a week	26	24,1%	24,1%	75,0%
	More than five days in a week	27	25,0%	25,0%	100,0%
	Total	108	100,0%	100,0%	

(Source: primary data imported from SPSS 23, 2022)

From table 4.6 show that the majority of respondents are working virtually more than five days per week with the percentage of 25.20% or 27 respondents.

B. Respondents 'Assessment of Research Variables

Based on the data collected, researcher inputted research variables consisting of leader-member exchange, virtual work, organizational commitment, job satisfaction, and performance. Assessment criteria used Scale Intervals with the formula:

$$\frac{\text{Ideal Maximum Value - Ideal Minimum Value}}{\text{Interval Class}}$$

So, the interval in the study is = ((5-1)/5) =0.8

Table 4.9 Interval scale criteria

Range	Description
1 - 1.8	Very bad
1.81 - 2.6	Bad
2.61 - 3.4	Pretty Good
3.41 - 4.2	Good
4.21 - 5.00	Very Good

In this study there are 5 variables with 47 indicators. The respondents in this study were 108 lecturer and academic worker of UII with assessment results as table 4.9.

Table 4.10 Respondents 'Assessment of Research Variables

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Information	Mean Variable
VWictuse1	108	2	5	4,23	Very Good	4,22
VWictuse2	108	1	5	3,88	Good	
VWictuse3	108	1	5	4,27	Very Good	
VWictuse4	108	2	5	4,52	Very Good	
OCA1	108	1,00	5,00	4,2407	Very good	3,97
OCA2	108	1,00	5,00	4,0093	Good	
OCA3_r	108	1,00	5,00	4,1111	Good	
OCA4_r	108	1,00	5,00	4,0648	Good	
OCA5	108	1,00	5,00	4,3889	Very Good	
OCA6_r	108	1,00	5,00	4,3519	Very Good	
OCB1	108	1,00	5,00	4,0278	Good	
OCB2	108	1,00	5,00	3,4907	Good	
OCB3	108	1,00	5,00	4,2407	Very Good	
OCB4	108	1,00	5,00	3,6389	Good	
OCB5	108	1,00	5,00	3,2222	Pretty Good	
OCB6	108	1,00	5,00	3,6667	Good	
OCN1_r	108	1,00	5,00	3,8333	Good	
OCN2	108	1,00	5,00	3,8611	Good	
OCN3	108	1,00	5,00	4,0000	Good	
OCN4	108	1,00	5,00	4,2778	Very Good	

OCN5	108	1,00	5,00	4,1574	Good	
OCN6	108	1,00	5,00	3,9074	Good	
JS1	108	2,00	5,00	4,4167	Very Good	
JS2	108	1,00	5,00	3,9722	Good	
JS3	108	1,00	5,00	4,2315	Very Good	
JS4	108	1,00	5,00	4,1111	Good	4,3
JS5	108	2,00	5,00	4,5000	Very Good	
JS6	108	3,00	5,00	4,6019	Very Good	
JS7	108	3,00	5,00	4,5370	Very Good	
JPP1	108	2,00	5,00	4,2963	Very Good	
JPP2	108	1,00	5,00	4,0926	Good	
JPP3	108	1,00	5,00	4,2037	Good	
JPP4	108	2,00	5,00	4,3056	Very Good	
JPP5	108	1,00	5,00	3,6667	Good	
JPO1	108	1,00	5,00	3,8148	Good	
JPO2	108	1,00	5,00	4,0278	Good	
JPO3	108	1,00	5,00	3,8241	Good	
JPO4	108	3,00	5,00	4,3981	Very Good	
JPO5	108	3,00	5,00	4,3796	Very Good	3,68
JPO6	108	2,00	5,00	4,1574	Good	
JPO7	108	1,00	5,00	3,9444	Good	
JPO8	108	1,00	5,00	4,1204	Good	
JPK1	108	1,00	5,00	2,1944	Bad	
JPK2	108	1,00	5,00	1,7778	Very Bad	
JPK3	108	1,00	5,00	1,7870	Very Bad	
JPK4	108	1,00	5,00	1,9815	Bad	
JPK5	108	1,00	5,00	1,7037	Very Bad	
VWE1	108	1,00	5,00	3,6944	Good	
VWE2	108	1,00	5,00	3,3889	Pretty Good	
VWE3	108	1,00	5,00	3,7407	Good	
VWE4	108	1,00	5,00	3,3056	Pretty Good	
VWE5	108	1,00	5,00	3,4259	Pretty Good	
VWE6	108	1,00	5,00	3,3611	Pretty Good	
VWE7	108	1,00	5,00	3,6389	Good	3,24
VWE8	108	1,00	5,00	3,7222	Good	
VWE9	108	1,00	5,00	3,5833	Good	
VWE10	108	1,00	5,00	3,7315	Good	
VWS1	108	1,00	5,00	2,4630	Bad	
VWS2	108	1,00	5,00	2,4167	Bad	

VWS3	108	1,00	5,00	2,6944	Pretty Good	
VWS4	108	1,00	5,00	2,5741	Bad	
LMX1	108	1,00	5,00	3,6481	Good	3,71
LMX2	108	1,00	5,00	3,7500	Good	
LMX3	108	1,00	5,00	3,9630	Good	
LMX4	108	1,00	5,00	3,7685	Good	
LMX5	108	1,00	5,00	3,5185	Good	
LMX6	108	1,00	5,00	3,5185	Good	
LMX7	108	1,00	5,00	3,8704	Good	
Valid N (listwise)	108					

(Source: primary data imported from SPSS 23, 2022)

From table 4.10 above, it showed average scores for each individual variable. For virtual work that includes ict use has an average score of 4,22 which is categorized as very good. Virtual work that includes enjoyment and stress has an average score of 3,24 which is categorized as good. Then, organizational commitment has an average score of 3,97 which is categorized as good. Job satisfaction has an average score of 4,3 which is categorized as very good and lastly job performance has an average score of 3,68 which is categorized as good.

In addition, table 4.10 showed that the majority of indicators in this study showed the lowest variables are organizational commitment 3,97 and followed by virtual work experience with score 3,24.

C. Normality test

Normality test is a test conducted to determine whether the distribution of data follows a normal distribution. A good regression models should have normal or near normal data distribution. The data of normality test in this study used the *Kolmogorov-Smirnov non-parametric* statistical test, which the basis for decision making is based on the probability. Researcher conducted normality test using unstandardized residual value and not raw data in order to analyze using one sample K-S test. Thus, if the result probability is >0.05, the research data is claimed to be normally distributed. The following are the results of the normality test:

Table 4.11 One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		108
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	,56696446
Most Extreme Differences	Absolute	,066
	Positive	,049
	Negative	-,066
Test Statistic		,066
Asymp. Sig. (2-tailed)		,200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

(Source: primary data imported from SPSS 23, 2022)

Based on the table above, it can be concluded that the processed data is normally distributed, because the significance value is 0.200. Therefore, the distribution can be said to be normal.

D. Model I

1. Confirmatory Factor Analysis

In this research, CFA focused on internal validity which means, validity method that measure the validity of instrument based on the statistical value in each item of variable LMX and organizational commitment included in the questionnaire that has been distributed using SPSS 23 version

Table 4.12 First Component Matrix Model I

	Component	
	1	2
LMX1	,699	
LMX2	,742	
LMX3	,726	

LMX4	,787	
LMX5	,757	
LMX6	,716	
LMX7	,764	
OCA1	,555	,521
OCA3_r		,786
OCA4_r		,820
OCA5		,613
OCA6_r		,736
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.13 First Total Variance Explained of Model I

Extraction Sums of Squared Loadings		
Total	% Of Variance	Cumulative %
5,378	41,372	41,372
1,891	14,542	55,915
Extraction Method: Principal Component Analysis.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.14 Final Rotated Component Matrix of Model I

	Component	
	1	2
LMX1	,706	
LMX2	,741	
LMX3	,731	
LMX4	,792	
LMX5	,758	
LMX6	,713	
LMX7	,773	
OCA3_r		,808

OCA4_r		,831
OCA5		,598
OCA6_r		,734
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.15 Final Total Variance Explained of Model I

Extraction Sums of Squared Loadings		
Total	% Of Variance	Cumulative %
4,719	42,897	42,897
1,858	16,893	59,790
Extraction Method: Principal Component Analysis.		

(Source: primary data imported from SPSS 23, 2022)

From the final rotated matrix table above, it has shown that the majority of items are grouped according to their respective variable and has shown a value of > 0.5. However, there are also several items that are not grouped according to their respective variables during the first factor analysis (OCA1), which must be eliminated for further data analysis. SPSS output has also been set to eliminate items that have a value of < 0.5. After OCA1 and OCA2 have been eliminated for not being in their respective groups and OCA2 not having a value of >0.5, the next factor analysis showed that all items have a value of >0.5 and are grouped according to their variable. Thus, all items from LMX and organizational commitment shown above are valid and can be used for further analysis. The final variance table also showed that by removing OCA1 and OCA2 from the data set, it has proven to strengthen the total variance explained. With OCA1 and OCA2 still in the data set, the cumulative percentage was 55.915%, however after eliminating OCA1 and OCA2, the cumulative increased to 59.790%.

2. Reliability Test

Table 4.16 LMX Reliability Statistics

Cronbach's Alpha	N of Items
,876	7

(Source: primary data imported from SPSS 23, 2022)

Table 4.17 Organizational Commitment Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
,765	4

(Source: primary data imported from SPSS 23, 2022)

The tables above represent the reliability of all items grouped according to their respective variables. The items for LMX showed a Cronbach alpha of .876 and the item for organizational commitment showed a Cronbach alpha of .765. As all the variables have a Cronbach alpha >0.6, researcher could conclude that all the items and variables are reliable.

3. Regression (Hierarchical)

A hierarchical linear regression is a special form of a multiple linear regression analysis in which more variables are added to the model in separate steps. This is often done to statistically control for certain variables, to see whether adding variables significantly improves a model's ability to predict the criterion variable and/or to investigate a moderating effect of variable.

Table 4.18 Variables Entered or Removed of Model I

Model	Variables Entered	Variables Removed	Method
1	LMX.cent[b]	.	Enter
2	virtual.inten.cent[b]	.	Enter
3	ICTUSE.cent[b]	.	Enter

4	LMX_x_virtual.inten.cent[b]	.	Enter
5	LMX_x_ICTUSE.cent[b]	.	Enter
a. Dependent Variable: OC (Organizational Commitment)			
b. All requested variables entered.			

(Source: primary data imported from SPSS 23, 2022)

Table 4.19 Model Summary of Model I

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,361[a]	,130	,122	,70909
2	,361[b]	,130	,114	,71237
3	,361[c]	,131	,106	,71562
4	,393[d]	,155	,122	,70915
5	,468[e]	,219	,181	,68471
1. Predictors: (Constant), LMX.cent				
2. Predictors: (Constant), LMX.cent, virtual.inten.cent				
3. Predictors: (Constant), LMX.cent, virtual.inten.cent, ICTUSE.cent				
4. Predictors: (Constant), LMX.cent, virtual.inten.cent, ICTUSE.cent, LMX_x_virtual.inten.cent				
5. Predictors: (Constant), LMX.cent, virtual.inten.cent, ICTUSE.cent, LMX_x_virtual.inten.cent, LMX_x_ICTUSE.cent				

(Source: primary data imported from SPSS 23, 2022)

From the model summary shown above, it is known that every variable added to LMX step by step had an increase in the value of R Square. Firstly, LMX towards OC had an R Square value of .130. LMX, virtual intensity towards KO had an R Square value of .130. LMX, virtual intensity and ICT use had an R Square value of .131. LMX, virtual intensity, ICT use and interaction between LMX with virtual intensity had an R Square value of .155. Lastly, LMX, virtual intensity, ICT use, interaction between LMX with virtual intensity and interaction between LMX with ICT use had an R Square value of .219 meaning that a moderating effect is present in this model.

4. F-test

Table 4.20 ANOVA of Model I

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7,968	1	7,968	15,848	,000[b]
	Residual	53,297	106	,503		
	Total	61,266	107			
2	Regression	7,982	2	3,991	7,864	,001[c]
	Residual	53,284	105	,507		
	Total	61,266	107			
3	Regression	8,006	3	2,669	5,211	,002[d]
	Residual	53,260	104	,512		
	Total	61,266	107			
4	Regression	9,468	4	2,367	4,707	,002[e]
	Residual	51,797	103	,503		
	Total	61,266	107			
5	Regression	13,445	5	2,689	5,735	,000[f]
	Residual	47,821	102	,469		
	Total	61,266	107			
a. Dependent Variable: OC						
b. Predictors: (Constant), LMX						
c. Predictors: (Constant), LMX, virtual.inten						
d. Predictors: (Constant), LMX, virtual.inten, ICTUSE						
e. Predictors: (Constant), LMX, virtual.inten, ICTUSE, LMX_x_virtual.inten						
f. Predictors: (Constant), LMX, virtual.inten, ICTUSE, LMX_x_virtual.inten, LMX_x_ICTUSE						

(Source: primary data imported from SPSS 23, 2022)

From the ANOVA table provided above, it is shown that all the models have a positive F value and a significance value <0.05. The first model has an F value of 15.848 and a significance value of .000. The second model has an F value of 7.864 and a significance value of .001. The third model has an F value of 5.211 and a significance value of .002. The fourth model has an F value of 4.707 and a significance value of .002. Lastly, the fifth model has an F value of 5.735 and a significance value of .000.

5. T-test

Table 4. 21 Coefficients of Model I

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,745	,379		7,246	,000		
	LMX	,399	,100	,361	3,981	,000	1,000	1,000
2	(Constant)	2,720	,412		6,602	,000		
	LMX	,399	,101	,361	3,962	,000	1,000	1,000
	virtual.inten	,006	,040	,015	,162	,871	1,000	1,000
3	(Constant)	2,632	,581		4,534	,000		
	LMX	,401	,102	,362	3,947	,000	,991	1,009
	virtual.inten	,003	,043	,008	,080	,936	,887	1,127
	ICTUSE	,022	,101	,021	,215	,830	,880	1,136
4	(Constant)	4,259	1,114		3,823	,000		
	LMX	-,017	,265	-,016	-,066	,948	,143	7,001
	virtual.inten	-,373	,225	-,850	-1,660	,100	,031	31,978
	ICTUSE	,010	,101	,010	,100	,921	,876	1,141
	LMX_x_virtual.inten	,100	,058	,954	1,705	,091	,026	38,153
5	(Constant)	9,571	2,118		4,520	,000		
	LMX	-1,400	,539	-1,266	-2,596	,011	,032	31,069
	virtual.inten	-,108	,235	-,247	-,460	,647	,027	37,594
	ICTUSE	-1,470	,517	-1,413	-2,841	,005	,031	32,324
	LMX_x_virtual.inten	,029	,061	,274	,466	,642	,022	45,278
	LMX_x_ICTUSE	,388	,133	2,014	2,912	,004	,016	62,493

a. Dependent Variable: OC

(Source: primary data imported from SPSS 23, 2022)

From the Coefficients table provided above, it has been shown the result of 5 models of regression. The first model shows LMX directly towards OC (organizational commitment) has a positive T value of 3.918 and a significance value of .000 which is <.05. The second model includes LMX and virtual intensity towards OC, the table shows a positive T value of 3.962 and a significance value of .000, however, virtual intensity has a positive T value of .162 with a

significance value of .871 which is >.05. The third model includes LMX, virtual intensity and ICT use. LMX, virtual intensity and ICT use all had a positive T value of 3.947, .080 and .215 but only LMX had a significance value below .05 whilst virtual intensity and ICT use had significance value of .936 and .830 which is >.05. The fourth model includes LMX, virtual intensity, ICT use and interaction between LMX and virtual intensity. The table shows that LMX and virtual intensity has a negative T value and only ICT use and interaction between LMX with virtual intensity has a positive value. However, in the fourth model, all variables have a significance value above >.05 meaning that it is not significant. Lastly, the fifth model includes LMX, virtual intensity, ICT use, interaction between LMX with virtual intensity and interaction between LMX, virtual intensity and ICT use. LMX, virtual intensity and ICT use all have a negative T value and the interaction variables both have positive T values. In addition, only three variables in the fifth model have a significance value <.05 including interaction between LMX, virtual intensity and ICT use with a significance value of .004 which means that it is significant.

On the other side, the table showed that there is a multicollinearity problem as there are multiple variables in model four and five where the Tolerance value is <0.10 and VIF value >10. This could occur statistically as data is multiplied in interaction variables, causing VIF value to inflate drastically and Tolerance value to drop below 0.10. Therefore, researcher subtracted a constant from every value of a variable in the data set such that all the variable's new mean is close to zero. This process is called mean centering and it is conducted because according to Iacobucci, D et al (2016), in a multiple regression that includes variables A, B and A x B, mean centering variables A and B before creating variable A x B (to present as an interaction variable) could clarify the output of the regression coefficients. Thus, also stated by Iacobucci, D (2016), conducting mean centering usually helps to reduce the multicollinearity problem in the interaction variable.

Table 4.22 Coefficients after Mean Centering

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,229	,068		61,982	,000		
	LMX.cent	,399	,100	,361	3,981	,000	1,000	1,000

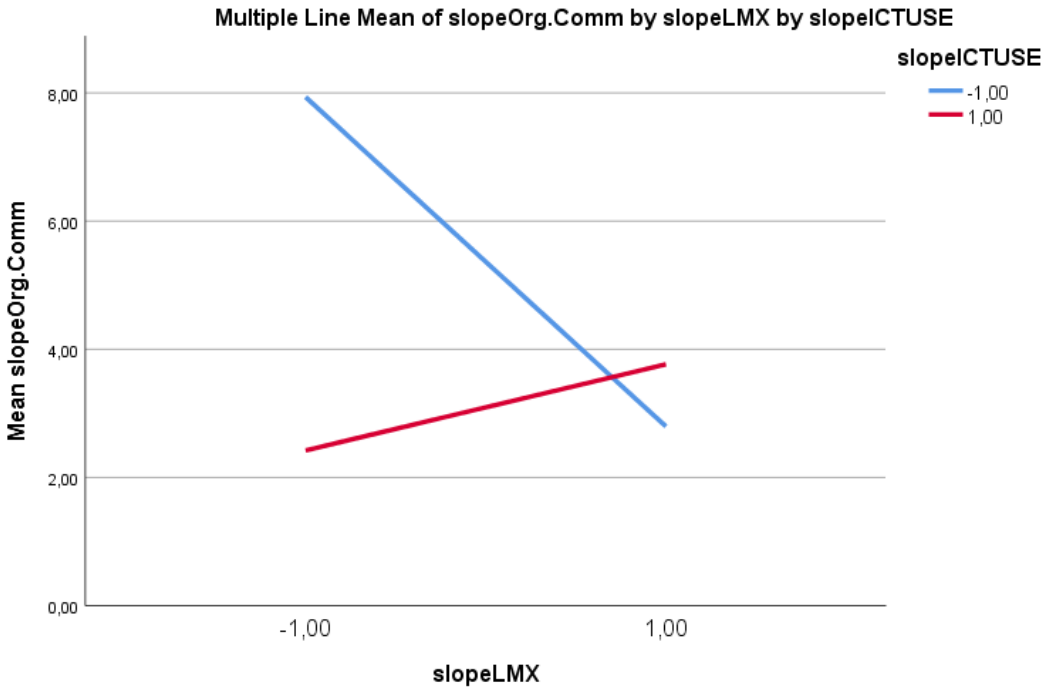
2	(Constant)	4,229	,069		61,697	,000		
	LMX.cent	,399	,101	,361	3,962	,000	1,000	1,000
	virtual.inten.cent	,006	,040	,015	,162	,871	1,000	1,000
3	(Constant)	4,229	,069		61,416	,000		
	LMX.cent	,401	,102	,362	3,947	,000	,991	1,009
	virtual.inten.cent	,003	,043	,008	,080	,936	,887	1,127
	ICTUSE.cent	,022	,101	,021	,215	,830	,880	1,136
4	(Constant)	4,229	,068		61,973	,000		
	LMX.cent	,378	,102	,342	3,727	,000	,974	1,026
	virtual.inten.cent	-,002	,042	-,004	-,045	,964	,882	1,133
	ICTUSE.cent	,010	,101	,010	,100	,921	,876	1,141
	LMX_x_virtual.inten.cent	,100	,058	,157	1,705	,091	,970	1,031
5	(Constant)	4,246	,066		64,190	,000		
	LMX.cent	,353	,098	,319	3,589	,001	,967	1,034
	virtual.inten.cent	-,002	,041	-,003	-,037	,971	,882	1,133
	ICTUSE.cent	-,027	,098	-,026	-,271	,787	,862	1,160
	LMX_x_virtual.inten.cent	,029	,061	,045	,466	,642	,817	1,224
	LMX_x_ICTUSE.cent	,388	,133	,283	2,912	,004	,808	1,237
a. Dependent Variable: OC								

(Source: primary data imported from SPSS 23, 2022)

Cut off values that are commonly used to indicate multicollinearity are the tolerance value >0.10 and the VIF value <10 (Ghozali, 2016). After conducting mean centering, the results showed that all variables from all five regression models show a tolerance value >0.10 and VIF value <10 which means that multicollinearity does not happen between the independent variables in this regression model.

Furthermore, after conducting regression using the mean centering data set, the table showed that LMX directly towards OC has a positive T value of 3.981 and a significance value of .000 which means that LMX has a positive and significant effect on organizational commitment. Thus, H1 is accepted and H0 is rejected. Also, the fifth model showed that the interaction variable LMX, virtual intensity and ICT use has a positive T value of 2.912 and a significance value of .004 which means LMX with virtual work as a moderator has a positive and significant impact on organizational commitment. Therefore, H4 is accepted and H0 is rejected.

6. Simple Slope



(Source: primary data imported from SPSS 23, 2022)

Figure 2. Simple Slope Regression Model I

The graph above is a simple slope that was created using Z-scores of LMX, Organizational commitment and ICT use. The nominal -1.00 shown above is to indicate low, whereas the nominal 1.00 is to indicate high. Therefore, from the graph above it is known from the blue line that during the pandemic, leaders who implements high levels of LMX but not through the use of ICT (physical interactions) caused a decrease in organizational commitment. On the other hand, presented by the blue line on the graph, leaders that implements high levels of LMX through ICT use caused an increase in organizational commitment during the pandemic. Therefore, the simple slope supports the fourth hypothesis which states that virtual work positively and significantly moderates the relationship between LMX and organizational commitment.

E. Model II

1. Confirmatory Factor analysis

Table 4.23 Rotated Component Matrix of Model II

	Component	
	1	2
LMX1	,619	
LMX2	,783	
LMX3	,723	
LMX4	,810	
LMX5	,740	
LMX6	,722	
LMX7	,778	
JS1	,512	,584
JS2		
JS4	,643	
JS5		,793
JS6		,883
JS7		,901
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.24 First Total Variance Explained of Model II

Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
5,843	41,738	41,738
2,064	14,742	56,481
Extraction Method: Principal Component Analysis.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.25 Final Rotated Component Matrix of Model II

	Component	
	1	2
LMX1	,641	
LMX2	,782	
LMX3	,743	
LMX4	,821	
LMX5	,744	
LMX6	,730	
LMX7	,790	
JS5		,797
JS6		,907
JS7		,914
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.26 Final Total Variance Explained of Model II

Final Total Variance Explained		
Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
4,494	44,939	44,939
1,976	19,759	64,699
Extraction Method: Principal Component Analysis.		

(Source: primary data imported from SPSS 23, 2022)

From the final rotated matrix table above, it has shown that the majority of items are grouped according to their respective variable and has shown a value of > 0.5. However, there are also several items that are not grouped according to their respective variables during the first factor analysis (JS1, JS2, JS3, JS4), which must be eliminated for further data analysis. SPSS output has also been set to eliminate items that have a value of < 0.5. After JS1, JS2, JS3, JS4 have been eliminated, the next factor analysis showed that all items have a value of >0.5 and are grouped

according to their variable. Thus, all items from LMX and job satisfaction shown above are valid and can be used for further analysis. The final variance table also showed that by removing JS1, JS2, JS3, JS4 from the data set, it has proven to strengthen the total variance explained. With JS1, JS2, JS3, JS4 still in the data set, the cumulative percentage was 56.481%, however after eliminating JS1, JS2, JS3, JS4, the cumulative increased to 64.699%.

2. Reliability test

Table 4.27 Reliability Test of LMX

Reliability Statistics	
Cronbach's Alpha	N of Items
,876	7

(Source: primary data imported from SPSS 23, 2022)

Table 4.28 Reliability Test of Job Satisfaction

Reliability Statistics	
Cronbach's Alpha	N of Items
,853	3

(Source: primary data imported from SPSS 23, 2022)

The tables above represent the reliability of all items grouped according to their respective variables. The 7 items for LMX showed a Cronbach alpha of .876 and the 3 items for job satisfaction showed a Cronbach alpha of .853. As all the variables have a Cronbach alpha >0.6, researcher could conclude that all the items of both LMX and job satisfaction are reliable for further analysis.

3. Regression (Hierarchical)

A hierarchical linear regression is a special form of a multiple linear regression analysis in which more variables are added to the model in separate steps. This is often done to statistically control for certain variables, to see whether adding variables significantly improves a model's ability to predict the criterion variable and/or to investigate a moderating effect of variable.

Table 4.29 Variables Entered or Removed of Model II

Model	Variables Entered	Variables Removed	Method
1	Zscore(LMX)[b]	.	Enter
2	Zscore(virtual.inten)[b]	.	Enter
3	Zscore(ICTUSE)[b]	.	Enter
4	Zscore(LMX_x_virtual.inten)[b]	.	Enter
5	Zscore(LMX_x_ICTUSE)[b]	.	Enter
a. Dependent Variable: Zscore(JS)			
b. All requested variables entered.			

(Source: primary data imported from SPSS 23, 2022)

Table 2.30 Model Summary of Model II

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,310[a]	,096	,088	,95506735
2	,329[b]	,109	,092	,95311922
3	,335[c]	,112	,086	,95585115
4	,352[d]	,124	,090	,95383229
5	,359[e]	,129	,086	,95578622
a. Predictors: (Constant), Zscore(LMX)				
b. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten)				
c. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE)				
d. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten)				
e. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten), Zscore(LMX_x_ICTUSE)				

(Source: primary data imported from SPSS 23, 2022)

From the model summary shown above, it is known that every variable added to LMX step by step had an increase in the value of R Square. Firstly, LMX towards KK had an R Square value of .096. LMX, virtual intensity towards KK had an R Square value of .109. LMX, virtual intensity

and ICT use had an R Square value of .112. LMX, virtual intensity, ICT use and interaction between LMX with virtual intensity had an R Square value of .124. Lastly, LMX, virtual intensity, ICT use, interaction between LMX with virtual intensity and interaction between LMX with ICT use had an R Square value of .129 meaning that a moderating effect is present in this model.

4. F-test

Table 4.31 ANOVA of Model II

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,312	1	10,312	11,305	,001[b]
	Residual	96,688	106	,912		
	Total	107,000	107			
2	Regression	11,614	2	5,807	6,392	,002[c]
	Residual	95,386	105	,908		
	Total	107,000	107			
3	Regression	11,980	3	3,993	4,371	,006[d]
	Residual	95,020	104	,914		
	Total	107,000	107			
4	Regression	13,291	4	3,323	3,652	,008[e]
	Residual	93,709	103	,910		
	Total	107,000	107			
5	Regression	13,820	5	2,764	3,026	,014[f]
	Residual	93,180	102	,914		
	Total	107,000	107			
a. Dependent Variable: Zscore(JS)						
b. Predictors: (Constant), Zscore(LMX)						
c. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten)						
d. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE)						
e. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten)						
f. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten), Zscore(LMX_x_ICTUSE)						

(Source: primary data imported from SPSS 23, 2022)

From the ANOVA table provided above, it is shown that all the models have a positive F value and a significance value <0.05. The first model has an F value of 11.305 and a significance value of .001. The second model has an F value of 6.392 and a significance value of .002. The

third model has an F value of 4.371 and a significance value of .006. The fourth model has an F value of 3.652 and a significance value of .008. Lastly, the fifth model has an F value of 3.026 and a significance value of .014.

5. T-test

Table 4.32 Coefficients of Model II

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-4,123E-15	,092		,000	1,000		
	Zscore(LMX)	,310	,092	,310	3,362	,001	1,000	1,000
2	(Constant)	-4,115E-15	,092		,000	1,000		
	Zscore(LMX)	,310	,092	,310	3,366	,001	1,000	1,000
	Zscore(virtual.inten)	,110	,092	,110	1,197	,234	1,000	1,000
3	(Constant)	-3,910E-15	,092		,000	1,000		
	Zscore(LMX)	,305	,093	,305	3,282	,001	,991	1,009
	Zscore(virtual.inten)	,131	,098	,131	1,337	,184	,887	1,127
	Zscore(ICTUSE)	-,062	,098	-,062	-,633	,528	,880	1,136
4	(Constant)	-4,147E-15	,092		,000	1,000		
	Zscore(LMX)	,576	,244	,576	2,359	,020	,143	7,001
	Zscore(virtual.inten)	,746	,521	,746	1,431	,156	,031	31,978
	Zscore(ICTUSE)	-,054	,099	-,054	-,550	,583	,876	1,141
	Zscore(LMX_x_virtual.inten)	-,684	,570	-,684	-1,200	,233	,026	38,153
5	(Constant)	-2,774E-15	,092		,000	1,000		
	Zscore(LMX)	,231	,515	,231	,448	,655	,032	31,069
	Zscore(virtual.inten)	,913	,567	,913	1,611	,110	,027	37,594
	Zscore(ICTUSE)	-,447	,525	-,447	-,851	,397	,031	32,324

	Zscore(LMX_x_virtual.inten)	-,871	,622	-,871	-1,401	,164	,022	45,278
	Zscore(LMX_x_ICTUSE)	,556	,730	,556	,761	,448	,016	62,493
a. Dependent Variable: Zscore(JS)								

(Source: primary data imported from SPSS 23, 2022)

From the Coefficients table provided above, it has been shown the result of 5 models of regression. The first model shows LMX directly towards JS (job satisfaction) has a positive T value of 3.362 and a significance value of .001 which is <.05. The second model includes LMX and virtual intensity towards JS, the table shows a positive T value of 3.366 and a significance value of .001, however, virtual intensity has a positive T value of 1.197 with a significance value of .234 which is >.05. The third model includes LMX, virtual intensity and ICT use. LMX and virtual intensity both had a positive T value of 3.282 and 1.337 whereas virtual intensity had a negative T value of -.636. Also, only LMX had a significance value below .05 whilst virtual intensity and ICT use had significance value of .184 and .528 which is >.05. The fourth model includes LMX, virtual intensity, ICT use and interaction between LMX and virtual intensity. The table shows that LMX and virtual intensity has a positive T value and only ICT use and interaction between LMX with virtual intensity has a negative T value. However, in the fourth model only LMX has a significance value below 0.05 whilst all variables have a significance value above >.05 meaning that it is not significant. Lastly, the fifth model includes LMX, virtual intensity, ICT use, interaction between LMX with virtual intensity and interaction between LMX, virtual intensity and ICT use. LMX, virtual intensity and interaction between LMX and ICT use all have a positive T value whilst ICT use and interaction between LMX and virtual intensity had negative T values. In addition, all five variables in the fifth model were insignificant as the significance value of all five variables are >0.05.

On the other side, the table showed that there is a multicollinearity problem as there are multiple variables in model four and five where the Tolerance value is <0.10 and VIF value >10. This could occur statistically as data is multiplied in interaction variables, causing VIF value to inflate drastically and Tolerance value to drop below 0.10. Therefore, researcher subtracted a constant from every value of a variable in the data set such that all the variable's new mean is close to zero. This process is called mean centering and it is conducted because according to Iacobucci, D et al (2016), in a multiple regression that includes variables A, B and A x B, mean centering

variables A and B before creating variable A x B (to present as an interaction variable) could clarify the output of the regression coefficients. Thus, also stated by Iacobucci, D (2016), conducting mean centering usually helps to reduce the multicollinearity problem in the interaction variable.

Table 4.33 Coefficient after Mean Centering of Model II

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,546	,048		95,405	,000		
	LMX.cen	,235	,070	,310	3,362	,001	1,000	1,000
2	(Constant)	4,546	,048		95,598	,000		
	LMX.cen	,235	,070	,310	3,366	,001	1,000	1,000
	virtual.inten.cen	,033	,028	,110	1,197	,234	1,000	1,000
3	(Constant)	4,546	,048		95,324	,000		
	LMX.cen	,231	,070	,305	3,282	,001	,991	1,009
	virtual.inten.cen	,039	,029	,131	1,337	,184	,887	1,127
	ICTUSE.cen	-,044	,070	-,062	-,633	,528	,880	1,136
4	(Constant)	4,546	,048		95,529	,000		
	LMX.cen	,242	,071	,319	3,417	,001	,974	1,026
	virtual.inten.cen	,042	,029	,140	1,425	,157	,882	1,133
	ICTUSE.cen	-,039	,070	-,054	-,550	,583	,876	1,141

	LMX_x_virtual.inten.cen	-,049	,041	-,112	-1,200	,233	,970	1,031
5	(Constant)	4,550	,048		95,025	,000		
	LMX.cen	,237	,071	,313	3,330	,001	,967	1,034
	virtual.inten.cen	,042	,030	,140	1,424	,157	,882	1,133
	ICTUSE.cen	-,046	,071	-,064	-,642	,522	,862	1,160
	LMX_x_virtual.inten.cen	-,062	,045	-,143	-1,401	,164	,817	1,224
	LMX_x_ICTUSE.cen	,073	,096	,078	,761	,448	,808	1,237
a. Dependent Variable: JS								

(Source: primary data imported from SPSS 23, 2022)

Cut off values that are commonly used to indicate multicollinearity are the tolerance value >0.10 and the VIF value <10 (Ghozali, 2016). After conducting mean centering, the results showed that all variables from all five regression models show a tolerance value >0.10 and VIF value <10 which means that multicollinearity does not happen between the independent variables in this regression model.

Furthermore, after conducting regression using the mean centering data set, the table showed that LMX directly towards JS has a positive T value of 3.362 and a significance value of .001 which means that LMX has a positive and significant effect on job satisfaction. Thus, H2 is accepted and H0 is rejected. Also, the fifth model showed that the interaction variable LMX, virtual intensity and ICT use has a positive T value of .761 and a significance value of .449 which means LMX with virtual work as a moderator has a positive but insignificant impact on job satisfaction. Therefore, H5 is rejected and H0 is accepted.

F. Model III

1. Confirmatory Factor Analysis

Table 4.34 Rotated Component Matrix of Model III

	Component	
	1	2

LMX1		,598
LMX2		,754
LMX3		,736
LMX4		,820
LMX5		,665
LMX6		,686
LMX7		,815
JPP1	,662	
JPP2	,560	
JPP3	,543	
JPP4	,748	
JPP5		,469
JPO1	,567	
JPO2	,424	,464
JPO3	,599	,456
JPO4	,787	
JPO5	,788	
JPO6	,804	
JPO7	,712	,433
JPO8	,660	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.35 First Total Variance Explained

Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
8,326	41,628	41,628
2,433	12,164	53,792
Extraction Method: Principal Component Analysis.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.36 Final Rotated Component Matrix of Model III

	Component	
	1	2
LMX1		,621
LMX2		,759
LMX3		,746
LMX4		,831
LMX5		,675
LMX6		,695
LMX7		,815
JPP1	,636	
JPP3	,553	
JPP4	,760	
JPO1	,544	
JPO4	,822	
JPO5	,827	
JPO6	,788	
JPO8	,659	
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

(Source: primary data imported from SPSS 23, 2022)

Table 4.37 Final Total Variance Explained of Model III

Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
6,094	40,625	40,625
2,385	15,897	56,522
Extraction Method: Principal Component Analysis.		

(Source: primary data imported from SPSS 23, 2022)

From the final rotated matrix table above, it has shown that the majority of items are grouped according to their respective variable and has shown a value of >0.5. However, there are also several items that are not grouped according to their respective variables during the first factor analysis (JPP5, JPO2, JPO3, JPO7). As the factor analysis took 6 tries, JPP2 has also been eliminated due to the item not being grouped according to the variable. Thus, all the items stated previously must be eliminated for further data analysis. SPSS output has also been set to eliminate items that have a value of < 0.5. After JPP2, JPP5, JPO2, JPO3, JPO7 have been eliminated, the next factor analysis showed that all items have a value of >0.5 and are grouped according to their variable. Thus, all items from LMX and job performance shown above are valid and can be used for further analysis. The final variance table also showed that by removing JPP2, JPP5, JPO2, JPO3, JPO7 from the data set, it has proven to strengthen the total variance explained. With JPP2, JPP5, JPO2, JPO3, JPO7still in the data set, the cumulative percentage was 53.792%, however after eliminating JPP2, JPP5, JPO2, JPO3, JPO7, the cumulative increased to 56.522%.

2. Reliability test

Table 4.38 Reliability Statistic of LMX

Cronbach's Alpha	N of Items
,876	7

(Source: primary data imported from SPSS 23, 2022)

Table 4.39 Reliability of Job Performance

Cronbach's Alpha	N of Items
,865	8

(Source: primary data imported from SPSS 23, 2022)

The tables above represent the reliability of all items grouped according to their respective variables. The 7 items for LMX showed a Cronbach alpha of .876 and the 8 items for job performance showed a Cronbach alpha of .865. As all the variables have a Cronbach alpha >0.6, researcher could conclude that all the items of both LMX and job performance are reliable for further analysis.

3. Regression (Hierarchical)

A hierarchical linear regression is a special form of a multiple linear regression analysis in which more variables are added to the model in separate steps. This is often done to statistically control for certain variables, to see whether adding variables significantly improves a model's ability to predict the criterion variable and/or to investigate a moderating effect of variable.

Table 4.40 Variables Entered or Removed of Model III

Model	Variables Entered	Variables Removed	Method
1	Zscore(LMX)[b]	.	Enter
2	Zscore(virtual.intern)[b]	.	Enter
3	Zscore(ICTUSE)[b]	.	Enter
4	Zscore(LMX_x_virtual.inten)[b]	.	Enter
5	Zscore(LMX_x_ICTUSE)[b]	.	Enter
a. Dependent Variable: Zscore(JP)			
b. All requested variables entered.			

(Source: primary data imported from SPSS 23, 2022)

Table 4.41 Model Summary of Model III

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,473[a]	,224	,216	,88528535
2	,502[b]	,252	,238	,87299057
3	,506[c]	,256	,235	,87470235
4	,515[d]	,265	,237	,87377056
5	,521[e]	,271	,235	,87452464
a. Predictors: (Constant), Zscore(LMX)				
b. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten)				
c. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE)				
d. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten)				
e. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten), Zscore(LMX_x_ICTUSE)				

(Source: primary data imported from SPSS 23, 2022)

From the model summary shown above, it is known that every variable added to LMX step by step had an increase in the value of R Square. Firstly, LMX towards JP had an R Square value of .224. LMX, virtual intensity towards KK had an R Square value of .252. LMX, virtual intensity and ICT use had an R Square value of .256. LMX, virtual intensity, ICT use and interaction between LMX with virtual intensity had an R Square value of .265. Lastly, LMX, virtual intensity, ICT use, interaction between LMX with virtual intensity and interaction between LMX with ICT use had an R Square value of .271 meaning that a moderating effect is present in this model.

4. F-test.

Table 4.42 ANOVA of Model III

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23,925	1	23,925	30,527	,000[b]
	Residual	83,075	106	,784		
	Total	107,000	107			
2	Regression	26,978	2	13,489	17,700	,000[c]
	Residual	80,022	105	,762		
	Total	107,000	107			
3	Regression	27,429	3	9,143	11,950	,000[d]
	Residual	79,571	104	,765		
	Total	107,000	107			
4	Regression	28,362	4	7,091	9,287	,000[e]
	Residual	78,638	103	,763		
	Total	107,000	107			
5	Regression	28,991	5	5,798	7,581	,000[f]
	Residual	78,009	102	,765		
	Total	107,000	107			
a. Dependent Variable: Zscore(JP)						
b. Predictors: (Constant), Zscore(LMX)						
c. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten)						
d. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE)						
e. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten)						

f. Predictors: (Constant), Zscore(LMX), Zscore(virtual.inten), Zscore(ICTUSE), Zscore(LMX_x_virtual.inten), Zscore(LMX_x_ICTUSE)

(Source: primary data imported from SPSS 23, 2022)

From the ANOVA table provided above, it is shown that all the models have a positive F value and a significance value <0.05. The first model has an F value of 30.527 and a significance value of .000. The second model has an F value of 17.700 and a significance value of .000. The third model has an F value of 11.950 and a significance value of .000. The fourth model has an F value of 9.287 and a significance value of .000. Lastly, the fifth model has an F value of 7.581 and a significance value of .000.

5. T-test

Table 4.43 Coefficients of Model III

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	6,994E-16	,085		,000	1,000		
	Zscore(LMX)	,473	,086	,473	5,525	,000	1,000	1,000
2	(Constant)	7,117E-16	,084		,000	1,000		
	Zscore(LMX)	,472	,084	,472	5,598	,000	1,000	1,000
	Zscore(virtual.inten)	,169	,084	,169	2,002	,048	1,000	1,000
3	(Constant)	9,387E-16	,084		,000	1,000		
	Zscore(LMX)	,466	,085	,466	5,490	,000	,991	1,009
	Zscore(virtual.inten)	,192	,090	,192	2,140	,035	,887	1,127
	Zscore(ICTUSE)	-,069	,090	-,069	-,768	,444	,880	1,136
4	(Constant)	7,386E-16	,084		,000	1,000		
	Zscore(LMX)	,695	,223	,695	3,109	,002	,143	7,001

	Zscore(virtual.inten)	,711	,478	,711	1,488	,140	,031	31,978
	Zscore(ICTUSE)	-,062	,090	-,062	-,691	,491	,876	1,141
	Zscore(LMX_x_virtual.inten)	-,577	,522	-,577	-1,105	,272	,026	38,153
5	(Constant)	-7,585E-16	,084		,000	1,000		
	Zscore(LMX)	1,071	,471	1,071	2,273	,025	,032	31,069
	Zscore(virtual.inten)	,529	,518	,529	1,021	,310	,027	37,594
	Zscore(ICTUSE)	,366	,481	,366	,761	,448	,031	32,324
	Zscore(LMX_x_virtual.inten)	-,372	,569	-,372	-,654	,515	,022	45,278
	Zscore(LMX_x_ICTUSE)	-,606	,668	-,606	-,907	,367	,016	62,493
a. Dependent Variable: Zscore(JP)								

(Source: primary data imported from SPSS 23, 2022)

From the Coefficients table provided above, it has been shown the result of 5 models of regression. The first model shows LMX directly towards JP (Job performance) has a positive T value of 5.525 and a significance value of .000 which is <.05. The second model includes LMX and virtual intensity towards JP, the table shows a positive T value of 5.598 and a significance value of .000, however, virtual intensity has a positive T value of 2.002 with a significance value of .048 which is just <.05. The third model includes LMX, virtual intensity and ICT use. LMX and virtual intensity both had a positive T value of 5.490 and 2.140 whereas ICT use had a negative T value of -.768. Also, only LMX and virtual intensity had a significance value below .05 whilst ICT use had significance value of .444 which is >.05. The fourth model includes LMX, virtual intensity, ICT use and interaction between LMX and virtual intensity. The table shows that LMX and virtual intensity has a positive T value and only ICT use and interaction between LMX with virtual intensity has a negative T value. However, in the fourth model only LMX has a significance value below 0.05 whilst all variables have a significance value above >.005 meaning that it is not significant. Lastly, the fifth model includes LMX, virtual intensity, ICT use, interaction between LMX with virtual intensity and interaction between LMX, virtual intensity and ICT use. LMX, virtual intensity and ICT use all have a positive T value whilst interaction between LMX with virtual intensity and interaction between LMX with ICT use had negative T values. In addition, all

four variables in the fifth model except for LMX were insignificant as the significance value of all four variables are >0.05 whilst LMX has a significance value of .032.

On the other side, the table showed that there is a multicollinearity problem as there are multiple variables in model four and five where the Tolerance value is <0.10 and VIF value >10. This could occur statistically as data is multiplied in interaction variables, causing VIF value to inflate drastically and Tolerance value to drop below 0.10. Therefore, researcher subtracted a constant from every value of a variable in the data set such that all the variable's new mean is close to zero. This process is called mean centering and it is conducted because according to Iacobucci, D et al (2016), in a multiple regression that includes variables A, B and A x B, mean centering variables A and B before creating variable A x B (to present as an interaction variable) could clarify the output of the regression coefficients. Thus, also stated by Iacobucci, D (2016), conducting mean centering usually helps to reduce the multicollinearity problem in the interaction variable.

Table 4.44 Coefficient after Mean Centering of Model III

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,209	,047		89,327	,000		
	LMX.cen	,382	,069	,473	5,525	,000	1,000	1,000
2	(Constant)	4,209	,046		90,582	,000		
	LMX.cen	,382	,068	,472	5,598	,000	1,000	1,000
	virtual.inten.cen	,054	,027	,169	2,002	,048	1,000	1,000
3	(Constant)	4,209	,047		90,404	,000		
	LMX.cen	,377	,069	,466	5,490	,000	,991	1,009
	virtual.inten.cen	,062	,029	,192	2,140	,035	,887	1,127
	ICTUSE.cen	-,053	,069	-,069	-,768	,444	,880	1,136
4	(Constant)	4,209	,047		90,503	,000		
	LMX.cen	,387	,069	,479	5,593	,000	,974	1,026
	virtual.inten.cen	,064	,029	,199	2,217	,029	,882	1,133
	ICTUSE.cen	-,047	,069	-,062	-,691	,491	,876	1,141

	LMX_x_virtual.inten.cen	-,044	,040	-,095	-1,105	,272	,970	1,031
5	(Constant)	4,206	,047		89,988	,000		
	LMX.cen	,393	,070	,485	5,646	,000	,967	1,034
	virtual.inten.cen	,064	,029	,199	2,212	,029	,882	1,133
	ICTUSE.cen	-,039	,069	-,052	-,568	,571	,862	1,160
	LMX_x_virtual.inten.cen	-,028	,043	-,061	-,654	,515	,817	1,224
	LMX_x_ICTUSE.cen	-,085	,094	-,085	-,907	,367	,808	1,237
a. Dependent Variable: JP								

(Source: primary data imported from SPSS 23, 2022)

Cut off values that are commonly used to indicate multicollinearity are the tolerance value >0.10 and the VIF value <10 (Ghozali, 2016). After conducting mean centering, the results showed that all variables from all five regression models show a tolerance value >0.10 and VIF value <10 which means that multicollinearity does not happen between the independent variables in this regression model.

Furthermore, after conducting regression using the mean centering data set, the table showed that LMX directly towards JP has a positive T value of 5.525 and a significance value of .000 which means that LMX has a positive and significant effect on job performance. Thus, H3 is accepted and H0 is rejected. Also, the fifth model showed that the interaction variable LMX, virtual intensity and ICT use has a positive T value of -.907 and a significance value of .367 which means LMX with virtual work as a moderator has a negative and insignificant impact on job performance. Therefore, H6 is rejected and H0 is accepted.

G. Discussion

1. LMX has positive impact on organizational commitment

The table showed that LMX directly towards organizational commitment has a positive T value of 3.981 and a significance value of .000 which means that LMX has a positive and significant effect on organizational commitment. This research supported by the previous study mentioned by Aulia, V. A. O. (2019) there are many positive impacts found from the high quality of LMX in the company including higher organizational commitment. López-Ibort et al., (2020) also confirmed that the quality of the relationship that the supervisor

created with the employees is prior to their organizational commitment and identified that the quality of the LMX is positively correlated with organizational commitment.

Based on the previous research, they show that there is positive relationship between leader-member exchange and organizational commitment. This is because high levels of LMX lead to subordinates having higher levels of trust towards their leaders and higher levels of trust enables subordinates to conduct tasks without being skeptical about their leaders and the organization, resulting in improved organizational commitment.

2. LMX has positive impact on job satisfaction

The table showed that LMX directly towards job satisfaction has a positive T value of 3.362 and a significance value of .001 which means that LMX has a positive and significant effect on job satisfaction. Supriyanto et al., (2021) found that the quality of the relationship between leaders and employees or LMX will increase employees' job satisfaction through their communication. If employees have a good relationship with the employer, they tend to establish several privileges such as trust, support, attention, respect and self-recognition.

This is also supported by research conducted by Gutama et. al (2015) who conducted research on the effect of LMX on employee job satisfaction who found the results that the variable had a positive and insignificant effect on job satisfaction.

Based on the previous studies, they show that there is positive relationship between leader-member exchange and job satisfaction. The reason being is that, high quality LMX usually includes better communication and engagement between leaders and subordinates, which leads to subordinates having a more positive feeling. A quality LMX also includes higher recognition, and when subordinates are recognized by their leaders, it creates satisfaction towards their job as an individual would feel like their effort would not go unnoticed.

3. LMX has positive impact on job performance

The table showed that LMX directly towards job performance has a positive T value of 5.525 and a significance value of .000 which means that LMX has a positive and significant effect on job performance. Supported by research of Audenaert et al (2016) identified that members who experience high level of LMX tend to act positively by showing improved performance. Likewise, the research from Kim & Woo (2017) also confirmed that the LMX

theory based on the high-quality relationships between leaders and members can strengthen their performance.

From the previous study, show that association between LMX and job performance are related positively because LMX will create more enthusiasm, dedication, energy, and previous research emphasize that workers are happier as they feel like time have passed quickly when working, which then leads to them achieving higher job performance.

4. There is positive influence between LMX and Organizational Commitment with Virtual Work as the Moderating

The interaction variable LMX, virtual intensity and ICT use has a positive T value of 2.912 and a significance value of .004 which means LMX with virtual work as a moderator has a positive and significant impact on organizational commitment. Pratiwi et al., (2020) said that organizational commitment is increasing among employees during virtual work. Then, it also conducted research on employees who did virtual work and found organizational commitment to have a negative relationship on LMX during virtual work.

Based on previous study, data show that the use of communication technology could compensate low levels of direct and face to face interactions between leaders and members as applications like Zoom and Google Meet allows for real time calls that also enables users to interact using video which would then maintain organizational commitment

5. There is positive influence between LMX and Job Satisfaction with Virtual Work as the Moderating

Fifth model showed that the interaction variable LMX, virtual intensity and ICT use has a positive T value of .761 and a significance value of .449 which means LMX with virtual work as a moderator has a positive but insignificant impact on job satisfaction. This result is not supported by Golden & Veiga (2005), because positive effects may be outweighed by a decrease in work relationships and feelings of isolation. Therefore, according to this study the negative impact of increasing isolation and decreased social contacts on relationships with supervisors and coworkers is likely to significantly affect job satisfaction since they are separated from others and away from the office environment.

According to Zulfa N. F. I. (2021), they also stated that harmonious relations between superiors and subordinates will create a large and favorable LMX impact on job satisfaction

during virtual employment. With the harmony created in the relationship between superiors and subordinates, it will lead to trust that is reflected in the responsibilities that are fulfilled by the workers.

The findings in this research are not aligned with previous studies mentioned. Previous studies regarding the moderation effects of virtual work towards the relationship between LMX and job satisfaction were conducted in logistics industry. This research could contribute to new findings that virtual work does not moderate the relationship between LMX and job satisfaction in an educational industry. Furthermore, a reason for this hypothesis to be insignificant could be pressure, because research conducted by Bhattarai M. (2020) found that people were happier and more satisfied to save money for gas (petrol) expenses or transit fees compared to the pressure of having to attend virtual meetings for hours and on a regular weekly basis.

6. There is positive influence between LMX and Job Performance with Virtual Work as the Moderating

The fifth model showed that the interaction variable LMX, virtual intensity and ICT use has a positive T value of -.907 and a significance value of .367 which means LMX with virtual work as a moderator has a negative and insignificant impact on job performance. According to the previous study, LMX and employee performance have a relationship with employee performance due to the good relationship between superiors and subordinates and has a relationship of mutual trust and it has a significant positive effect on employee performance (Zulfa, 2021).

Current technology improvements, according to Wolor W. et al. (2020), can be best leveraged in the form of virtual work, where employees do not need to interact face-to-face in order to do their tasks. As a result, working virtually will help employees and companies to continue to achieve optimal performance.

The findings in this research are not aligned with previous studies mentioned. The reason being could be a lack of direct interaction or a lack in technological skills because research conducted by Wolor W. et al. (2020) found that virtual work has a negative effect on performance as lack of direct interactions could constrain communication and in addition, generational differences was founded to hinder performance as it would make several

employees difficult to cooperate because not all employees are categorized as skilled and capable in technology.

Table 4.45 Hypothesis Conclusion

No	Hypotheses	Result
H1	LMX has positive impact on organizational commitment	Supported
H2	LMX has positive impact on job satisfaction	Supported
H3	LMX has positive impact on job performance	Supported
H4	There is positive influence between LMX and organizational commitment with virtual work as the moderating	Supported
H5	There is positive influence between LMX and job satisfaction with virtual work as the moderating	Not Supported
H6	There is positive influence between LMX and job performance with virtual work as the moderating	Not Supported

CHAPTER V

CONCLUSION

A. Conclusion

Based on the research findings and discussions, a few conclusions can be drawn as follows:

1. LMX has a positive and significant effect on organizational commitment in Universitas Islam Indonesia.
2. LMX has a positive and significant effect on job satisfaction in Universitas Islam Indonesia.
3. LMX has a positive and significant effect on job performance in Universitas Islam Indonesia.
4. LMX with virtual work as a moderator has a positive and significant impact on organizational commitment in Universitas Islam Indonesia.
5. LMX with virtual work as a moderator has a positive but insignificant impact on job satisfaction in Universitas Islam Indonesia.
6. LMX with virtual work as a moderator has a negative and insignificant impact on job performance in Universitas Islam Indonesia.

B. Recommendation

According to the result of this research, there are a few recommendations that this study could provide. Virtual work only moderates LMX towards commitment, however virtual work does not moderate between LMX and job satisfaction and job performance. Therefore, from the result of this research, researcher suggest that Universitas Islam Indonesia look deeper into providing LMX through virtual work to increase satisfaction and performance level of both academic workers and lecturers.

Lastly, according to the assessment of research variables conducted in this study. Researcher found that virtual work experience scored the lowest with a mean of 3.24 with three items having bad average scores. The three items include; I feel tense when working remotely, I feel worried when working remotely, I feel pressured and stressed when working remotely. Thus, Universitas Islam Indonesia could observe the virtual work environment of lecturers and academic workers to help improve their virtual work experience to avoid

employees experiencing pressure and stress in order to improve the output of job performance during COVID-19.

C. Research Limitation

Based on the background and identification of the problems that have been outlined in the previous sub-chapter discussion, the authors limited the problems in the study, namely related to the response of each faculty. The biggest problem was that the response received by researcher took very long. Secondly, researcher did not receive the same or similar number of lecturer and academic worker of each faculty of Universitas Islam Indonesia as the majority of respondents in this research was from Business and Economics Faculty and Medical Faculty. While Industrial Technology faculty only consisted of 4 respondents. Meanwhile, if researcher was able to get similar number of respondents from each faculty, maybe then this research could be more accurate for further use.

Furthermore, the data of this research as a whole is still in the form of perceptual. It would be better if there is a measurement scale in the form of ordinal data such as performance measured from the perspective of supervisor or through data result of employee performance so that the research becomes more objective. On the other hand, data collected in this research was cross-sectional which caused the perception that working virtually from time to time is portrayed to be negative. Therefore, future researcher could use longitudinal data collection method.

REFERENCE

Asrar-ul-Haq, M., Kuchinke, K. P., & Iqbal, A. (2017). The relationship between corporate social responsibility, job satisfaction, and organizational commitment: Case of Pakistani higher education. *Journal of Cleaner Production*, *142*, 2352–2363.

Akdol, B., & Arikboga, F. S. (2017). Leader member exchange as a mediator of the relationship between servant leadership and job satisfaction: A research on Turkish ICT companies. International Journal of Organizational Leadership, 6(4), 525–535.

Al-Omari, K., & Okasheh, H. (2017). The influence of work environment on job performance: A case study of engineering company in Jordan. *International Journal of Applied Engineering research. Vol. 12 No. 24*

Andari, R. D. (2008). Pengaruh budaya perusahaan terhadap kinerja karyawan dengan variabel moderating motivasi studi kasus RSU PKU Muhammadiyah Yogyakarta.

Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van-Waeyenberg, T. (2016). When employee performance management affects individual innovation in public organizations: the role of consistency and LMX. The International Journal of Human Resource Management, 30(5), 815–834.

Aulia, V. A. O. (2019). Pengaruh Leader-Member Exchange terhadap Perilaku Kerja Inovatif pada Karyawan PT X. *IR-Perpustakaan Universitas Airlangga*

Ayu, V. (2019). Pengaruh leader-member exchange terhadap perilaku kerja inovatif pada karyawan PT X. Published.

Baotham, S., Hongkhuntod, W. and Rattanajun, S. (2010). The effects of job satisfaction and organizational commitment on voluntary turnover intentions of Thai Employees in the new university. Review of Business Research, Vol. 10 No. 1, pp. 73-82.

Baskoro, B., Sudarmadji, Suherman, Yani, A., Jayadi, & Simanjuntak, R. (2021). Job satisfaction, leader-member exchange, and organizational citizenship behavior among motorcycle salespersons in Jakarta. *EURASIA: Economics & Business*, *2(4*2), 3–11.

Bhattarai, M. (2020). Working From Home and Job Satisfaction During The Pandemic Times. 12(3), 472–4485. Https://Doi.Org/10.13140/RG.2.2.21515.11046

Bhatti, M. H., Akram, M. U., Hashim, M., & Akram, Z. (2016). Relationship between job stress and organizational commitment: An empirical study of banking sector. *E3 Journal of Business Management and Economics, 7*(1), 029–037.

Byun, G., Dai, Y., Lee, S., & Kang, S. (2017). Leader trust, competence, LMX, and member performance: a moderated mediation framework. *Psychological Reports*, *120*(6), 1137–1159.

Cascio, W. F., & Shurygailo, S. (2003). E-leadership and virtual teams. Organizational Dynamics, 31, 362-376.

Carolina M. D. R. L., Sílvio L. D. P., Lúcia M. B. D. O. (2018). Organizational commitment, job satisfaction and their possible influences on intent to turnover. Revista de Gestão, https://doi.org/10.1108/REGE-12-2017-008

Creswell, J. W. (2009). Research Design: qualitative, quantitative, and mixed methods approach. United States America: Sage Publications, inc.

Dhamija, P., Gupta, S., & Bag, S. (2019). Measuring of job satisfaction: the use of quality of work life factors. *Benchmarking: An International Journal*, *26*(3), 871–892.

Dhammika, K. A. S. (2016). Visionary leadership and organizational commitment: the mediating effect of leader member exchange (LMX). *Wayamba Journal of Management*, *4*(1), 1.

Direktorat Dosen UII. (2021, September 1). Badan Pengembangan Akademik Universitas Islam Indonesia. https://karya.uii.ac.id/?i=ki-dosen

Eliyana, A., Ma'arif, S., & Muzakki. (2019). Job satisfaction and organizational commitment effect in the transformational leadership towards employee performance. *European Research on Management and Business Economics*, *25*(3), 144–150.

Ghani, N. M. A., Yunus, N. S. N. M., & Bahry, N. S. (2016). Leader's personality traits and employees job performance in public sector, putrajaya. *Procedia Economics and Finance*, *37*, 46–51.

Ghozali, I. (2013). Aplikasi analisis multivariate dengan program ibm spss 21 update pls regresi. Semarang: Badan Penerbit Universitas Diponegoro.

Gigauri, I. (2020). Effects of covid-19 on human resource management from the perspective of digitalization and work-life-balance. *International Journal of Innovative Technologies in Economy*, *4(31)*.

Golden, T. D., & Veiga, J. F. (2005). The impact of extent of telecommuting on job satisfaction: resolving inconsistent findings. Journal of Management, 31(2), 301–318.

Gooty, J., Thomas, J. S., Yammarino, F. J., Kim, J., & Medaugh, M. (2019). Positive and negative emotional tone convergence: An empirical examination of associations with leader and follower LMX. *The Leadership Quarterly*, *30*(4), 427–439.

Guinalíu, M., & Jordán, P. (2016). Building trust in the leader of virtual work teams. *Spanish Journal of Marketing - ESIC*, *20*(1), 58–70.

Gutama, G., Hermanto, M. C., Kaihatu, T. S., & Kartika, E. W. (2015). Analisa pengaruh leader-member exchange terhadap kepuasan kerja karyawan melalui perceived organizational support sebagai variabel mediasi di restoran de Boliva Surabaya. Jurnal Hospitality dan Manajemen Jasa, 3(1), 256-268

Graen, G.B., Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level, multi-domain perspective. Leadersh. Q. 1995, 6, 219–247.

Hair, J. F., Bush, R. P., & Ortinau, D. J. (2003). Marketing research: within a changing.

Humala, I. (2017). Typology on leadership toward creativity in virtual work. *Interdisciplinary Journal of Information, Knowledge, and Management*, 12, 209-243

Ho, G. W. K. (2016). Examining Perceptions and Attitudes. *Western Journal of Nursing Research*, *39*(5), 674–689.

Hoyle, R. H. (2012). Confirmatory factor analysis. In M. Lewis-Beck, A. Bryman, & T. Liao (Eds), *Encyclopedia of Social Science Research Methods.* Vol. 1, pp 169-175). Thousand Oaks, CA: Sage Publications.

Iacobucci, D., Schneider, M. J., Popovich, D. L., & Bakamitsos, G. A. (2016). Mean centering, multicollinearity, and moderators in multiple regression: The reconciliation redux. *Behavior Research Methods*, *49*(1), 403–404.

Jalagat, R. (2016). Job performance, job satisfaction, and motivation: a critical review of their relationship. *International Journal of Management and Economics 6(6):36-43*

Kim, M. S., & Koo, D. W. (2017). Linking LMX, engagement, innovative behavior, and job performance in hotel employees. International Journal of Contemporary Hospitality Management, 29(12), 3044–3062.

Koopmans, L., Bernaards, Hildebrandt, Buuren, V., Beek, V. D., & Vet, D. (2013). 51 Improving the individual work performance questionnaire using Rasch analysis. *Occupational and Environmental Medicine*, *70*(Suppl 1), A17.3-A18.

Li, L., Zhu, Y., & Park, C. (2018). Leader–member exchange, sales performance, job satisfaction, and organizational commitment affect turnover intention. *Social Behavior and Personality: An International Journal*, *46*(11), 1909–1922.

Lopez-Ibort, N., La Cuesta, D. G., Antonanza-Lombarte, T., & Gascon-Catalan, A. (2020). The correlation between leader-member exchange and organizational commitment among spanish registered nurses: the moderating role of sec and hospital size. *International Journal of Environmental Research and Health*

Luthans, Fred (2007), Perilaku organisasi (translate), 10 editions. Yogyakarta: Andi Offset

Mangkunegara A. P. (2008), Perilaku dan budaya organisasi, Bandung: Refika Aditama

Martinez-Amador, J. (2016). Remote and on-site knowledge worker productivity and engagement: a comparative study of the effect of virtual intensity and work location preference. Case Western Reserve University

Martin, R., Guillaume, Y. R. F., Thomas, G., Lee, A., & Epitropaki, O. (2014). Leader-member exchange (LMX) and performance: a meta-analytic review. Academy of Management Proceedings, 2014(1), 12416.

Meil, P., & Kirov, V. (2017). Introduction: the policy implications of virtual work. *Policy Implications of Virtual Work*, 3–28.

Memon, M. A., Ting, H., Cheah, J. H., Thurasamy, R., Chuah, F., & Cham, T. H. (2020). Sample Size for Survey Research: Review and Recommendations. *Journal of Applied Structural Equation Modeling*, *4*(2), i–xx. https://doi.org/10.47263/jasem.4(2)01

Meyer, J. P., & Allen, N. J. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. Journal of Occupational Psychology, 63, 1-18.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61–89.

Meyer, J. P., & Allen, N. J. (1996). Affective, continuance and normative commitment to the organization: An examination of construct validity. Journal of Vocational Behavior, 49, 252-276.

Murat, H. M. S. (2001). An analysis of psychological empowerment and job satisfaction for restaurant employees. The Ohio State University

Nimpuna, A. J. (2020). Pengaruh leader member exchange terhadap job performance karyawan dengan work engagement sebagai variabel mediasi pada lingkungan kerja golden tulip holland resort batu. *Skripsi Thesis Universitas Airlangga*.

Panduan pencegahan dan pengendalian corona virus disease 2019 (covid-19) di tempat kerja perkantoran dan industri dalam mendukung keberlangsungan usaha pada situasi pandemi. (2020). *Keputusan Menteri Kesehatan Republik Indonesia*, *no HK.01.07/Menkes/328/2020*. 1–27.

Priyadharsan, S., & Nithiya, P. (2020). Association between the organizational culture and eployees' performance. *International Journal of Research and Innovation in Social Science IV* (VIII). 2454-6186

Prasad, K., & Akhilesh, K.B. (2002). Global virtual teams: what impacts their design and performance? Team performance management. *An International Journal. 8(5/6). pp 102-112.*

Pratiwi A., Mulamukti A., Pertiwi M., Andriany A. R. (2020). Hubungan subjective well-being dengan komitmen organisasi pada pekerja yang melakukan work from home di masa pandemi covid 19. Vol. 2, No. 11, November 2020

Putra, A. D. (2016). Pengaruh leader member exchange, locus of control terhadap kepuasan kinerja dan komitmen organisasional sebagai variabel mediating. Published.

Raghuram, S., Hill, N. S., Gibbs, J. L., & Maruping, L. M. (2019). Virtual work: bridging research clusters. *Academy of Management Annals*, *13*(1), 308–341.

Ramalho Luz, C. M. D., Luiz De Paula, S., & de Oliveira, L. M. B. (2018). Organizational commitment, job satisfaction and their possible influences on intent to turnover. *Revista de Gestão*, *25*(1), 84–101.

Rameshkumar, M. (2020). Employee engagement as an antecedent of organizational commitment – A study on Indian seafaring officers. *The Asian Journal of Shipping and Logistics*, *36*(3), 105–112.

Ratcheva, V., & Vyakarnam, S. (2001). Exploring team formation processes in virtual partnerships. Integrated Manufacturing Systems. 12(7). Pp 512-523.

Robbins, S. P. (2001). Organizational behavior, 9th edition. New Jersey: Prentice Hall, Inc, 2001. Perilaku Organisasi, Jakarta: Gramedia, 2006

Ryalino, C. (2020). How Indonesia copes with coronavirus disease 2019 so far (part one): The country, the government, and the society. *Bali Journal of Anesthesiology*, *4*(2), 33.

Saha, R. (2016). Factors influencing organizational commitment – Research lessons. Management Research and Practice Vol. 8 Issue 3 (2016) Pp: 36-48

Scales, A. N., & Quincy Brown, H. (2020). The effects of organizational commitment and harmonious passion on voluntary turnover among social workers: a mixed methods study. *Children and Youth Services Review, 104782.*

Sekaran, U. (2003). Research methods for business: a skill-building approach. New York: John Wiley & Sons, Inc.

Setawarman D., Hermawati A., & Mas N. (2021). Dampak kompensasi dan LMX (leader-member exchange) terhadap kepuasan kerja serta implikasinya pada komitmen organisasi. Published.

Shaikh, G. M., Thebo, J. A., Jamali, M., Sangi, F., Sangi, S. A., & Sheikh, G. M. (2019). The impact of quality leader member exchange on job satisfaction Mediating effect of organizational commitment. *Sociology International Journal*, *3*(5).

Siqueira, M.M.M. and Gomide J. S. (2004), "Vínculos do Indivíduo com o trabalho e com a Organização", in Zanelli, J.C., Borges-Andrade, J.E. and Bastos, A.V.B. (Eds), Psicologia, organizações e trabalho no Brasil, Artmed, Porto Alegre, pp. 134-149.

Statt, D. A. (Ed.). (2004). The Routledge dictionary of business management. Psychology Press.

Stup, R. (2003). Control the factors that influence employee success. Managing the Hispanic workforce conference. Cornell University and Pennsylvania State University.

Suharnomo, S., & Kartika, D. (2018). Leader-member exchange, job satisfaction, employee engagement, and employee performance. *Diponegoro International Journal of Business*, *1*(2), 121.

Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif dan R&D. *Bandung: Alfabeta*

Supriyanto, A. S., Maharani. V., Haris. A., Soetjipto, B. E., Harianto. Rudi., & Yahya. Muchlis (2020). The effect of organizational citizenship behavior on job satisfaction mediated with spiritual leadership. *International Journal of Business and Society 21*(2):737-748

Supriyanto, A. S., Maharani. V., Reza M. F., Mitasari Ratna. (2021). Fastor influencing employee performance: the role of leader-member exchange and job satisfaction. *PalArch's Journal of Archaeology of Egypt/Egyptology 18(2)*

Swailes, S. (2002). Organizational commitment: a critique of the construct and measures. *International Journal of Management Reviews*, *4*(2), 155–178.

Terpstra-Tong, J., Ralston, D. A., Treviño, L. J., Naoumova, I., de la Garza Carranza, M. T., Furrer, O., Li, Y., & Darder, F. L. (2020). The quality of leader-member exchange (LMX): a multilevel analysis of individual-level, organizational-level and societal-level antecedents. *Journal of International Management*, *26*(3), 100760.

Total Coronavirus Cases in Indonesia. (2020, March 2). Worldometer. https://www.worldometers.info/coronavirus/country/indonesia/

Universitas Islam Indonesia. (2020). Perpanjangan pembelajaran daring dan peniadaan layanan tatap muka untuk mitigasi penyebaran covid-2019. *Surat Edaran Rektor, No. 1080/Rek/10/SP/III/2020*.

Wijaya, & Siswoni. (2020). Analisa pengaruh leader member exchange terhadap organizational commitment: studi pada karyawan hotel x, Surabaya. Published.

Wolor W., Aminah H., Rahmi, & Martono S. (2020). The effectiveness of virtual work to keep achieving optimal performance amid the covid-19 virus outbreak. *International Journal of Criminology and Sociology, 2020, 9, 310-314*

Yahya, A., Jusoh, Y. J., Jabar, M. A., & Ali, N. M. (2016). Factors affecting global virtual teams' performance in software projects. *Journal of Theoretical and Applied Information Technology 15th October 2016. Vol.92. No.1*

Yuan, K. H., Cheng, Y., & Maxwell, S. (2013). Moderation Analysis Using a Two-Level Regression Model. *Psychometrika*, *79*(4), 701–732. https://doi.org/10.1007/s11336-013-9357-x

Zulfa N. F. I. (2021). Pengaruh leader-member exchange (LMX) terhadap kinerja karyawan melalui kepuasan kerja pada PT. Berlian Jasa Terminal Indonesia. *Jurnal Ilmu Manajemen Volume 9 Nomor 1 – Jurusan Manajemen Fakultas Ekonomi Universitas Negeri Surabaya*

Appendix I

IDENTITAS RESPONDEN

Jenis Kelamin:

a. Laki-laki
b. Perempuan

Usia (tahun):

a. < 20
b. 21 – 30
c. 31 – 40
d. 41 – 50
e. 51 – 60
f. > 60

Status Pernikahan:

a. Belum menikah
b. Pernah menikah
c. Menikah, belum mempunyai anak
d. Menikah, sudah mempunyai anak

Pendidikan Terakhir:

a. Diploma
b. Sarjana
c. Magister
d. Doktor
e. Other: ….

Lama Bekerja (tahun):

a. < 3
b. 3 – 10

c. 11 – 20
d. 21 – 30
e. > 30

Posisi Pekerjaan:

a. Dosen
b. Tenaga Kependidikan (tendik)

Unit Kerja (Fakultas):

a. Bisnis dan Ekonomika
b. Hukum
c. Ilmu Agama Islam
d. Kedokteran
e. Matematika dan IPA
f. Psikologi dan Ilmu Sosial Budaya
g. Teknik Sipil dan Perencanaan
h. Teknologi Industri

A. Intensitas Bekerja Virtual

Berapa hari dalam seminggu anda bekerja secara virtual?

a. Sehari dalam seminggu
b. Dua hari dalam seminggu
c. Tiga hari dalam seminggu
d. Empat hari dalam seminggu
e. Lima hari dalam seminggu
f. Lebih dari lima hari dalam seminggu

Dari 1 – 5, berapa frekuensi anda menggunakan alat-alat berikut untuk membantu anda melakukan pekerjaan?

No	Jenis Alat	Tidak Pernah	Jarang	Kadang-kadang	Sering	Selalu
1.	Konferensi video (Zoom, Whatsapp Call/Video, Google Meet, Panopto, Skype)					
2.	Software kolaborasi internal (Google docs, Google sheets, Google slide, Google drive, dropbox)					
3.	Intranet Internal Organisasi (VPN UII, SSO UII)					
4.	Berkirim pesan sesama karyawan/dosen dan tendik (Whatsapp Grup/Privat/direct messages, Gmail UII)					

PETUNJUK PENGISIAN

Mohon kuesioner ini diisi secara lengkap dari seluruh pernyataan yang telah disediakan. Berilah tanda (√) pada kolom jawaban yang tersedia. Terdapat 5 (lima) alternatif pengisian jawaban, yaitu:

STS = Sangat Tidak Setuju

TS = Tidak Setuju

N = Netral

S = Setuju

SS = Sangat Setuju

B. Komitmen Organisasi

Dari skala 1 - 5, seberapa jauh anda mempersepsikan kecintaan dan keterikatan emosional terhadap organisasi anda?

i. Skala Komitmen Afektif

No	Pertanyaan	STS	TS	N	S	SS
1.	Saya akan sangat senang menghabiskan karir saya di organisasi ini.					
2.	Saya benar-benar merasa seolah-olah masalah organisasi ini juga menjadi masalah saya.					
3.	Saya tiak merasa seperti ‘bagian dari keluarga’ di organisasi ini. (R)					
4.	Saya tidak merasa ‘terikat secara emosional’ dengan organisasi ini.					
5.	Organisasi ini memiliki banyak arti pribadi bagi saya.					
6.	Saya tidak merasakan rasa memiliki yang kuat terhadap organisasi ini. (R)					

ii. Skala Komitmen Berkelanjutan

No	Pertanyaan	STS	TS	N	S	SS
1.	Akan sulit bagi saya untuk meninggalkan pekerjaan saya di organisasi ini sekarang walaupun jika saya menginginkan.					
2.	Terlalu banyak gangguan dalam hidup saya jika saya meninggalkan organisasi ini.					
3.	Saat ini, bertahan dengan pekerjaan di organisasi ini adalah kebutuhan dan keinginan bagi saya.					

4.	Saya yakin bahwa saya memiliki sedikit pilihan alternatif untuk mempertimbangkan jika saya meninggalkan organisasi ini.					
5.	Salah satu konsekuensi negative dari meninggalkan pekerjaan saya dalam organisasi ini adalah sedikitnya alternatif yang tersedia di tempat lain.					
6.	Salah satu alasan utama saya bekerja di organisasi ini adalah jika saya meninggalkan organisasi ini akan membutuhkan pengorbanan pribadi yang besar.					

iii. Skala Komitmen Normatif

No	Pertanyaan	STS	TS	N	S	SS
1.	Saya tidak merasa ada kewajiban untuk tetap berada dalam organisasi ini. (R)					
2.	Karena saya juga memperoleh keuntungan personal bekerja di sini, saya merasa bersalah jika saya meninggalkan organisasi ini.					
3.	Saya akan merasa bersalah jika saya meninggalkan organisasi ini sekarang.					
4.	Organisasi ini layak mendapatka loyalitas saya.					
5.	Saya tidak akan meninggalkan organisasi ini sekarang, karena saya merasa ada kewajiban untuk organisasi ini.					
6.	Saya merasa berhutang budi pada organisasi ini.					

C. Kepuasan Kerja

Dari skala 1 -5, seberapa jauh anda mempersepsikan nilai kepuasan dari aspek pekerjaan, status, karir, rekan kerja dan atasan?

No	Pertanyaan	STS	TS	N	S	SS

1.	Saya diberikan kesempatan untuk memanfaatkan kemampuan dan ketrampilan yang saya miliki.					
2.	Saya merasa puas dengan prestasi yang saya dapatkan dari pekerjaan saat ini.					
3.	Pekerjaan ini memberikan peluang untuk saya menjadi karyawan tetap.					
4.	Saya dan atasan saya mampu saling memahami satu sama lain dengan baik.					
5.	Saya memiliki rekan-rekan kerja yang baik di organisasi ini.					
6.	Saya diberikan kesempatan untuk membantu orang lain.					
7.	Saya diberi kesempatan untuk mampu berkontribusi baik di unit kerja saya.					

D. Kinerja Pekerjaan

i. Skala Kinerja Pekerjaan

No	Pertanyaan	STS	TS	N	S	SS
1.	Saya mengatur rencana untuk menyelesaikan pekerjaan saya dengan tepat waktu.					
2.	Perencanaan saya optimal.					
3.	Saya selalu memikirkan hasil yang saya harus capai dalam pekerjaan saya.					
4.	Saya bisa membedakan masalah utama dan masalah lainya di pekerjaan saya.					
5.	Saya bisa melakukan pekerjaan yang baik dengan waktu dan usaha yang minimal.					

ii. Skala Kinerja Kontekstual

1.	Saya mengambil tanggungjawab lebih.					
2.	Saya berinisiatif memulai tugas baru, ketika tugas lama saya sudah selesai.					
3.	Saya mengambil pekerjaan yang menantang, ketika pekerjaan tersebut tersedia.					
4.	Saya bekerja untuk menjaga pengetahuan saya tetap *up-to-date*.					
5.	Saya bekerja untuk menjaga kemampuan saya tetap *up-to-date*.					
6.	Saya menemukan solusi yang krreatif untuk masalah baru.					
7.	Saya terus mencari tantangan baru dalam pekerjaan saya.					
8.	Saya aktif berpartisipasi dalam pertemuan koordinasi kerja.					

iii. Skala Kontraproduktif Perilaku Kerja

Skala Kontraproduktif Perilaku Kerja						
1.	Saya mengeluh tentang hal-hal yang tidak penting dalam pekerjaan.					
2.	Saya membuat masalah lebih besar dari yang seharusnya.					
3.	Saya lebih fokus terhadap hal negatif pekerjaan dari pada hal positif pekerjaan saya.					
4.	Saya berbicara dengan rekan kerja saya tentang aspek negatif pekerjaan saya.					
5.	Saya berbicara dengan orang di luar organisasi ini tentang perihal negatif pekerjaan saya.					

E. Pekerjaan Virtual

Dari skala 1 – 5, seberapa jauh anda mempersepsikan kesenangan yang dialami ketika anda sedang bekerja virtual?

No	Pertanyaan	STS	TS	N	S	SS
1.	Saya memikirkan betapa saya menikmati bekerja secara virtual.					
2.	Saya merasa itu adalah pilihan saya untuk bekerja secara virtual.					
3.	Saya merasa saya cukup baik dalam bekerja secara virtual.					
4.	Saya merasa rileks saat bekerja secara virtual.					
5.	Saya sangat menikmati bekerja secara virtual.					
6.	Saya merasa dapat melakukan apa yang ingin saya lakukan ketika bekerja secara virtual.					
7.	Saya merasa cukup terampil dalam bekerja secara virtual.					
8.	Saya pikir bekerja secara virtual itu menarik.					
9.	Saya akan menganggap bekerja secara virtual sangat menyenangkan.					
10.	Setelah bekerja secara vitual untuk sementara waktu, saya merasa cukup kompeten.					

Dari skala 1 -5, seberapa jauh anda mempersepsikan tekanan dan stres yang dialami ketika anda sedang bekerja virtual?

No	Pertanyaan	STS	TS	N	S	SS
1.	Saya merasa tegang saat bekerja secara remote (jarak jauh).					
2.	Saya merasa cemas ketika bekerja secara remote (jarak jauh).					

3.	Saya berpikir bekerja secara remote (jarak jauh) itu membosankan.					
4.	Saya merasakan tekanan atau stres saat bekerja secara remote (jarak jauh).					

F. Hubungan antar Atasan-Bawahan

Dari skala 1 – 5, seberapa jauh anda mempersepsikan hubungan dan relasi kerja anda dengan atasan?

No	Pertanyaan	STS	TS	N	S	SS
1.	Secara hubungan, apakah anda tahu kedudukan anda di mata atasan dan apakah anda tahu seberapa puas pemimpin anda dengan apa yang anda lakukan?					
2.	Seberapa baik atasan anda mengerti dan peka terhadap masalah dan kebutuhan pekerjaan anda?					
3.	Seberapa baik atasan anda mengakui potensi dalam diri anda?					
4.	Terlepas dari seberapa besar otoritas formal/jabatan yang ia miliki di dalam posisinya, apakah ada peluang atasan anda akan menggunakan kekuasaannya untuk membantu memecahkan masalah pekerjaan anda?					
5.	Terlepas dari seberapa besar otoritas formal/jabatan yang ia miliki di dalam posisinya, apakah ada peluang atasan anda memberi jaminan anda keluar dari masalah pekerjaan dengan kekuasaan yang ia miliki?					
6.	Saya yakin pada atasan saya sehingga saya akan membela keputusannya, meskipun ia tidak hadir untuk memberikan keterangan/klarifikasi.					

7.	Bagaimana anda menggambarkan hubungan kerja anda dengan atasan?					

Appendix II

Model I

Reliability Test

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
LMX1	22,3889	17,548	,563	,871
LMX2	22,2870	16,823	,689	,853
LMX3	22,0741	17,938	,672	,857
LMX4	22,2685	16,684	,726	,849
LMX5	22,5185	17,243	,642	,860
LMX6	22,5185	16,794	,619	,864
LMX7	22,1667	17,355	,717	,851

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
KA3_r	12,8056	4,700	,650	,662
KA4_r	12,8519	4,688	,662	,654
KA5	12,5278	6,775	,470	,760
KA6_r	12,5648	6,061	,517	,735

Model II

Reliability Test

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
LMX1	22,3889	17,548	,563	,871
LMX2	22,2870	16,823	,689	,853
LMX3	22,0741	17,938	,672	,857
LMX4	22,2685	16,684	,726	,849
LMX5	22,5185	17,243	,642	,860
LMX6	22,5185	16,794	,619	,864
LMX7	22,1667	17,355	,717	,851

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
KK5	9,1389	1,037	,671	,869
KK6	9,0370	1,232	,734	,789
KK7	9,1019	1,195	,798	,735

Model III

Reliability Test

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
LMX1	22,3889	17,548	,563	,871
LMX2	22,2870	16,823	,689	,853
LMX3	22,0741	17,938	,672	,857
LMX4	22,2685	16,684	,726	,849
LMX5	22,5185	17,243	,642	,860
LMX6	22,5185	16,794	,619	,864
LMX7	22,1667	17,355	,717	,851

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
KKP1	29,3796	15,527	,589	,851
KKP3	29,4722	15,261	,532	,859
KKP4	29,3704	15,413	,683	,842
KKO1	29,8611	15,055	,509	,864
KKO4	29,2778	15,735	,641	,846
KKO5	29,2963	15,762	,639	,846
KKO6	29,5185	14,906	,741	,835
KKO8	29,5556	14,623	,663	,842