

THE IMPACT OF E-LEADERSHIP ON EMPLOYEE PERFORMANCE: MEDIATING ROLE OF DIGITAL AMO

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Abstract

This study has investigated the relationship of e-leadership and AMO on employee performance. Cross sectional research design is used in this study. A sample of 300 respondents is used to test the proposed hypothesis due to shortage of time. Primary data is collected with the help of structured questionnaire. SPSS is used to analyze the results. Correlation analysis showed that all variables are positively correlated with each other. Hypothesis are tested using process macro model – 4. The results showed that e-leadership has significant positive influence on employee performance. E-leadership has positive significant relationship with AMO. AMO has positive relationship with employee performance. The last hypothesis i.e. “the relationship between e-leadership and employee performance is insignificant in the presence of AMO”. This study has several implications for industry and managers. This study also contributed in the literature of leadership and employee performance as well as in the discipline of organizational behavior.

INTRODUCTION

The advancement of the corporate world today necessitates the maintenance and improvement of job quality. This is so that the company can compete on a national and international level with other similar businesses. The development of a potential workforce is one of the most essential factors in determining a company's success. The company seeks to recruit and retain enthusiastic individuals, as well as to develop and sustain competitive human resources (Bahari et al., 2018). According to Iskamto (2012), managing human resources is a complex task since you must deal with people from various educational backgrounds, personalities, and social backgrounds. For this reason, it's critical to have an acceptable and well-executed policy in place from a company leader

in order to overcome these human resources issue. Organizational success is largely dependent on the performance of its employees. In order to achieve peak performance, the company must be able to create conditions in which people are encouraged and empowered to reach their greatest potential in terms of their abilities and skills. All of these studies are consistent with each other (Iskamto et al., 2020 b; Khajeh, 2018; Wiandari and Darma, 2017). Employees are judged on the quality of their work. For a company to run smoothly, it needs its employees to execute at the highest level possible. To ensure that the company's objectives are met, every organization must provide an evaluation of the work done by its employees. This is meant to help

employees fix mistakes they make while performing their duties. In the year of our Lord (Iskamto, 2019), The company's vision and aim will be fulfilled if personnel are able to complete tasks in accordance with the company's system. To achieve the company's goals, employees must be able to adhere to the leadership's instructions (Ibrahim and Daniel). To be an effective leader, one must successfully guide and move a person or group to complete all scheduled actions in the pursuit of a goal, as stated by Hurduzeu (2015). achieve predetermined goals by completing all scheduled tasks. Effective leadership, according to Hurduzeu (2015), involves guiding and motivating an individual or a group to reach a goal through the completion of all assigned tasks. achieve established goals by completing all scheduled tasks.

Employee performance results will be influenced by leadership conduct that can motivate and direct people. Employees are social creatures who are the company's major asset; they are planners, implementers, and controllers who are always on the go. active in the workplace with ideas, feelings, and wants that might impact their behavior at the workplace This attitude can influence work performance and enthusiasm for the task at hand (Iskamto and., 2020; Iskamto et al., 2020a; Asri and Darma, 2020). It takes someone to be a leader that may excite and direct employees through leadership conduct Employees are a valuable resource.

These employees are the company's greatest asset because they are strategists and social beings. Work attitudes can be affected by implementers and controllers who are constantly engaged in the business. This frame of mind has the power to sway the result. Performance and enthusiasm for the job assigned to him/her.

Significance of the Study

Organizational success is largely dependent on the performance of its employees. Organizations need to be able to create conditions in which employees may grow and improve their abilities and skills. All of these studies are consistent with each other (Iskamto et al., 2020b), as well as with the findings of Khajeh and Wiandari and Darma, 2017).

Rationale of the Study

An employee's mistakes while doing their duties are to be corrected with this in mind (Iskamto, 2019).

The company's vision and aim will be fulfilled if personnel are able to complete tasks in accordance with the company's system. One strategy to achieve the company's goals is to have employees who are able to follow the leadership's instructions (Ibrahim and Daniel, 2019).

Research Gap

Employee motivation can be maximized by a manager's leadership (leadership) in an organization, according to a number of studies. The passion and leadership spirit of a leader can inspire and motivate his followers. Fahmi and Irham, thank you (2014: 18). In order to achieve optimal performance, organizations must be able to create work environments that encourage and facilitate employees' ability to develop and improve their abilities and skills optimally. In the workplace, leadership is one of the aspects that determines employee productivity. According to the path-goal hypothesis, leadership and employee performance are linked.

Objectives of the Study

The objectives of the study are given below;

- 1) To identify the impact of e-leadership on employee performance.
- 2) To determine whether e-leadership is linked with AMO (ability, motivation and opportunity).
- 3) To measure the relationship between AMO (ability, motivation and opportunity) and employee performance.
- 4) To determine the mediating role of AMO (ability, motivation and opportunity) in the relationship between e-leadership and employee performance.

Literature Review

Performance

Creating a corporation is a means to an end, but achieving those ends efficiently demands a high level of performance. Everyone's conduct may be seen as a work achievement made by employees in line with their job position in the organization, and this behavior is known as "performance." Relationship building and open lines of communication are at the heart of good work management. An effective manager is one who can link his or her job directly to

a company's long-term goals. There is a direct correlation between the success of a firm and the quality of its workforce. It will be much better if the employees are extremely motivated, creative, and innovative. Human resources must be improved in order for the company to succeed. A process's effectiveness may be measured by its output or outcome (Artawaijaya and Darma, 2015). For Hasibuan (2012), "performance" is "the product of the work generated by employees, or tangible conduct that is demonstrated according to a job in the company." In other words, 'Performance' is derived from the words 'job performance' and 'real performance' (work performance or actual achievement someone has achieved). An employee's performance is defined as the quality and amount of work he or she does while fulfilling his or her tasks. Performance is the end outcome of a procedure based on previously agreed-upon terms or agreements that relates to and is measured over a specific period of time.

E-Leadership

An ICT (Information and Communication Technology) social impact technique to achieve projected changes in attitudes, feelings, ideas, behavior and/or performance with a person, group or organization has been characterized as E-Leadership after Avolio and Dodge, (2000). (definitions). Because of this, information systems and information science are used, and information management techniques are developed (definition after Atkin,1998). For multi-party engagement in organizational and inter-organizational operations AIT (Sophisticated Information Technology) provides the means, techniques, and expertise to enable improved data gathering; processing; administration; retrieval and display (Avolio and Dodge 2001).

The internet and intranets are examples of ICTs that can be used to demonstrate e-leadership, as well as email, texting, social media, and video presentations (and logs). This study found that leaders have an added responsibility to set up AITs that encompass everything from office information systems to expert systems to groupware decision-making tools and productivity improvements, as noted by Avolio et al. (2014). Leaders can be classified according to how

and why they utilize technology at both an individual and a business level.

Influence of Leadership on Employee Performance

The effect on employee performance that e-leadership has leadership set by a manager (leadership) in an organization, according to several studies, may foster a peaceful work environment and boost employee morale, resulting in maximum motivation. Influence from a leader's leadership spirit may inspire and propel his followers in the right way. In the words of Fahmi, Irham Fahmi (2014: 18). In order to attain peak performance, businesses must be able to foster an environment in which individuals are encouraged and given the resources they need to grow personally and professionally. Leadership is a factor that affects employee performance. Based on the path-goal theory, the link between leadership and employee performance. Since, e-leadership is about to use electronic means for information sharing and it also aimed to digitally equip employees, as a result the employee performance is expected to increase. In other words, the enhanced skills that have been developed in employees due to e-leadership is likely to increase their performance. Based on this argument the following hypothesis is formulated.

H1: E-leadership has positive relationship with employee performance.

Digital AMO

Industrial psychologists, such as Lawshe (1945), have traditionally viewed performance as a function of training and selection, which helps employees improve their performance (e.g. Lawshe, 1945), and social psychologists, who focus on the importance of intrinsic motivation in performance, formed the basis of the MOA framework (e.g., Wyatt, 1934). As a result, this paradigm was eventually expanded to include all of the external variables that prohibit employees from working properly. Situational or operational restrictions are other terms that have been used to describe opportunities (Bendoly and Hur, 2007). The concepts of drive, opportunity, and capability are all intertwined (Blumberg and Pringle, 1982). From a motivational standpoint, employees who are less capable of sharing knowledge may also be less motivated to do so because they may perceive that sharing knowledge will be more difficult for

them, or they may have a lower likelihood of success, and/or they may feel that coworkers will not be eager to learn from them (Gist and Mitchell, 1992). As a result, we treat MOA as correlated but different entities because it is impossible to justify logically which way all causal linkages between AMO points. AMO factors that have sparked the most disagreement and discussion are motivation and self-efficacy (Mitchell and Daniels, 2003). Motivation is a topic that has a lot of research done on it (Latham, 2006). Research on organizational behavior has "essentially abandoned the overall idea of 'motivation,' and replaced it with more particular measures of employee behavior," according to Ambrose and Kulik (1999, pp. 278-279) Despite the fact that academics often use motivational theories to make predictions about human behavior, motivation is rarely measured or modelled empirically. According to Ambrose and Kulik (1999, p. 89), this breakthrough avoids the two major obstacles in motivational research: identifying motivation and evaluating the mediating effects of motivation. Knowledge-sharing behavior may be influenced by motivation, which can be measured and modelled in our study on motivation. However, we want to make clear that we are not arguing for a theory of motivation. What motivates people isn't the focus of theories of motivation, but rather what motivates people to do what they do. When and how employee incentive leads to knowledge-sharing behavior are examined in this study. In the next part, we'll look at four competing models.

Since, the primary goal of the leadership is to motivate employees to work beyond their skills. To achieve this goal, leadership focus to develop skills of the employees to meet the dynamic challenges. For skill enhancement, e-leadership is likely to work on ability of the employees to increase their productivity and efficiency which will result in higher performance. The second-best thing e-leadership can do is to provide opportunities for learning and growth. And last but not the least, leadership should work to increase motivation of the employees. Because only motivated employees can work at their optimum level and can benefit the organization. Based on this hypothesis, the following two hypotheses are formulated.

H2: E-leadership has positive relationship with Digital AMO.

H3: Digital AMO has positive relationship with employee performance.

Since, it is proposed that e-leadership has positive relationship with digital AMO and digital AMO has positive relationship with employee performance, it is further proposed that AMO mediates the relationship between e-leadership and employees performance. The main argument behind this assumption is that e-leadership focuses to improve digital AMO (ability, motivation and employee performance) of the employees which will eventually help to increase performance of the employees. Based on this argument the following relationship is proposed.

H4: AMO mediates the relationship between e-leadership and employee performance.

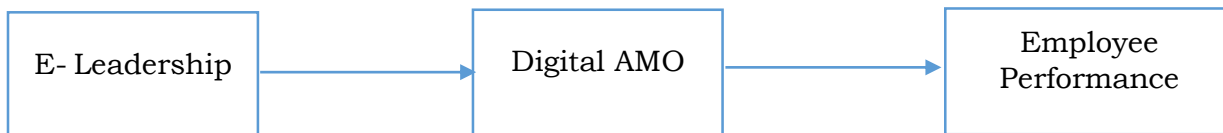


Fig. 1: Conceptual Model

Theoretical Frame Work

The AMO hypothesis, a well-known HR management theory, increases employee performance. According to the AMO hypothesis, employees perform well and efficiently when they have the necessary skills,

knowledge, and abilities, are motivated to do so, and are given opportunities and support by their employers to do so. "Assemble" is abbreviated as "AMO" (Ability, Motivation, Opportunity). We hypothesize based on the premise that the

effectiveness of an organization is determined by the pragmatic decisions that individuals within that organization make. All employees in the workplace are capable and inspired to work hard to achieve organizational goals and to seek out opportunities to contribute in the organization's success. Allowing employees to have a voice in the organization's operations and decision-making will undoubtedly increase their performance. Therefore, leaders must assist in the creation and maintenance of an inspiring work environment for their employees. De Lange and Summerfield collaborated on this project (2014). It is now widely accepted that telecommunications technology is critical to a company's long-term success. There are numerous ways in which our work adds to literature in making this determination. We begin by looking at the impact of the HPWS on individual employee performance, based on previous research on the HPWS-performance relationship. New research suggests that the HPWS may actually hurt employees rather than help them perform at a higher level, according to a recent study (see Han et al., 2020). In addition, the AMO paradigm can be used to the problem. Our findings show that the HPWS has a strong relationship with contextual performance at the organizational system level, which we believe improves the performance of individuals. Second, this research validates the recently created dynamic AMO model for HR research by Kellner et al (2019). Few studies have examined the impact of both system-level (HPWS) and individual-level (AMO) AMO on employee performance at the same time.

Our research contributes to the body of knowledge by identifying the distinct effects of the HPWS and individual AMO on task performance via contextual performance. Organizations might make appeals in order to keep their current staff and empower them to perform above expectations in a competitive contest (Alaali et al., 2021). There is a never-ending quest to improve and transform the effectiveness of organizations around the world. To put it another way, if today's businesses want to maintain their position and operate in a way that leads to their survival, development, and success, they must analyse their performance and accurately fulfil their commitments (Tajpour, Hosseini, & Moghaddm, 2018).

Recall that one of the conditions for each organization's existence is improving performance in terms of development and profitability components; on the other hand, it also avoids Maintaining and improving the standard of work in today's corporate world is a need. Consequently, the company is able to compete with other national and worldwide businesses. To be successful, a business must invest in the training of its future employees. As a means of maintaining a competitive advantage, the company looks for and nurtures eager personnel. A person's worth (Bahari et al., 2018). As a human resources manager, you have to deal with employees from a wide range of backgrounds and personalities. Because the improper policy can affect the organization, having a leader who is acceptable and guided by the agency is critical to addressing these human resources issue. The quality of a company's workforce has a significant impact on its overall success. In order for an organization to achieve its full potential, it must provide an environment that encourages and facilitates the development and improvement of employees' abilities and ideal capabilities (Iskamto, 2020). Employees are judged on the quality of their work. In order for a company's operations to run effectively, it needs its employees to perform at their maximum level. In order to efficiently meet the company's objectives, every organization must evaluate the work produced by its personnel. This helps employees remedy mistakes they make while executing their tasks. When employees are allowed to work inside the company's system in order to meet the company's vision and goal, their performance improves. One strategy to achieve the company's goals is to adhere to the leadership's policies (Ibrahim and Daniel, 2019). The LMX theory is to blame for the double perspective (Leader-member Exchange). Relationship quality and type is an important part of the leadership model's focus on LMX. Individuals, groups, and organizations are expected to benefit from this relationship value, which is built on mutual trust, respect, and shared responsibility (Gerstner and Day, 1997). Based on LMX theory, Jawadi et al. (2013) looked at how different leadership roles effect group collaboration and cooperation in a simulated setting. For the double perspective, the LMX theory is to blame (Leader-member Exchange). It is the sort and quality of relationship between a leader and his or her

followers that the LMX hypothesis is concerned with. This relationship value, which is based on mutual trust, respect, and shared accountability, is intended to have positive effects on individuals, groups, and organizations (Gerstner and Day, 1997). A study by Jawadi et al. (2013) used the LMX theory as a criterion to examine how different leadership roles affect collaborative and cooperative interactions in hypothetical organizations. We settled on socio-technical systems as the foundation for our discussion of e-leadership since they are seen as critical to an organization's effectiveness. Interacting with the outside world will be facilitated by a combination of grassroots organizing and state-of-the-art scientific planning. According to Trist, community scientific procedures are self-sustaining if they are interconnected. We are confident that AIT has produced a civilized society in the midst of modern computer-aided learning technology that has established the utility and impact on everyone by literally dedicating themselves to it (e.g., Avolio, Kahai & Dodge, 2000). Susan (2001) identified the fundamental seven competencies of e-leadership: control of information sources, interaction with the team and followers, promotion of conversation, communication with external stakeholders of the organization, proactive perception, authorizing and finally delegation. Susan (2001) identified in the words of Fisk (2002), the essence of e-leadership is transformational leadership. E-leadership is exemplified by traits like as foresight, integration, involvement, and cooperation.

In their study of e-leadership skills, Cordery et al. (2009) identified four main competencies: Human relationship skills are the first to be discussed, in which leaders help their subordinates resolve issues, motivate them, facilitate honest and open communication, recognize their efforts, and foster a sense of teamwork. As a second step, task and activity supervision; the leader supports the informing of work tasks, workplace communications, and the development of innovative technology devices, as well as the management of both operations. In the third step, leaders acquire resources by assisting their subordinates and informing them of customer wants. Even more importantly, executives must ensure that activities are aligned with the organization's goals to ensure a clear vision and direction. As Susan (2001)

points out, there are several fundamental concepts that may be applied in the workplace to ensure that it is a thriving one. When it comes to being a good listener you must be open-minded, honest, responsive, ready to learn and eager to relearn a sense of wonderment and vision. Mohammed, in 2009)

Research Design & Methodology

Cross sectional research design is used in this study. The FMCG sector, for example, is home to many local and multinational firms like as Nestle, Unilever, Procter & Gamble, and National Foods Limited. Companies like Novartis Pharma, Eli Lilly, Novo Nordisk and Wilson's Pharmaceuticals Pakistan are involved in the pharmaceutical industry. M&P, Muller & Phipps, and the corporate sector are all in the distribution industry. Primary data is collected from 300 respondents through a structured questionnaire using random sampling. As hypotheses are tested, variables are operationalized, theories are confirmed or updated, and general conclusions may be drawn from the findings, this approach appears to be useful for predicting and explaining phenomena.

Analysis

SPSS is used to analyze the collected data from respondents. Before processing data for analysis, it is carefully checked that data has no missing values. The following table shows the results of missing values. All variables are properly filled and have no missing value. It is necessary that data has no significant outliers because in the presence of outliers' true result cannot be drawn from data. For checking of outliers, box plots are used and the results are given below. In data there is not significant outlier. In order to preserve the originality of the data, outliers which are not significant, remained same and no treatment is applied on it. Because, any existing method to deal those outliers which are not significant, cannot guarantee the true results from respondent's point of view. In order to determine the reliability of the data, Chronbach alpha is used. All the variable in the data has value greater than 0.70 which shows that data has good reliability. The results of the test are given the following table.

Table: Reliability analysis

Variables	Reliability Statistics	
	Cronbach's Alpha	N of Items
E-Leadership	0.888	3
AMO	0.881	11
Employee Performance	0.935	7

The following table shows demographics of the data. 70% males participated in this study and 30% females participated in the data. Age is divided into 4 categories. In the data, 76% respondents are in the age bracket of 20-36 years, 8% are in the age of 36-45, 12% of the respondents are in the age of 46-55 years and only 4% of the respondents are more than 55 years. Education is divided in 4 categories. 2% of the respondents have education of intermediate, 24% of the respondents have bachelor degree, 68 respondents have education of masters and only 6% of the respondents have PhD degree. Work experience is divided into 3 categories. 56% of the respondents have work experience of 1-5 years, 10% of the respondents have work experience of 5-10 years and 34% of the respondents have work experience of 10-15 years.

Table: Demographics

Variables	%
Gender	
• Male	70
• Female	30
Age	
• 20-35	76
• 36-45	8
• 46-55	12
• 56 & above	4
Education	
• Intermediate	2
• Bachelor	24
• Master	68
• Doctorate	6
Work Experience	
• Less than 5	56
• 5-10 years	10
• 10-15 years	34

The following table shows descriptive statistics of the data. The mean of e-leadership is 3.4533. AMO has a mean value of 3.4055 and employee performance has mean value of 3.6914. Since all values are greater than 3, it shows the good level of presence of the selected variables in the organizations.

Table: Descriptive statistics

Variables	Mean	Std. Deviation	Skewness	Kurtosis	Ethical leadership	AMO	Employee performance
E-leadership	3.4533	1.02963	-.647	-.064	1		

AMO	3.4055	.75754	-.671	.459	.791**	1	
Employee Performance	3.6914	.94248	-1.008	.335	.472**	.641**	1

Pearson correlation is used to determine the coefficient of correlation among variables. All the correlations in the study are positively correlated with each other. The value of correlation between e-leadership and AMO is .791, which shows good correlation. The value of correlation between e-leadership and employee performance is .472. The correlation between AMO and employee performance is .641. It shows that both variables have good strength and are positively correlated. Normality of the data is checked using skewness and kurtosis values. Since the values of Skewness and Kurtosis for all variables are in the range of +3 and -3, it means the collected data is normal.

Regression Analysis & Mediation

Process Macro Model - 4 developed by Preacher & Hayes (2013) is used to determine the influence of e-leadership and AMO on employee job performance. Process macro model - 4 provides the regression results for a specific range of values for which results are true. This gives an advantage over simple linear regression which only produces results based on point estimation i.e. p value. Further, 5000 sample bootstrapping method were used which produced

better results than simple linear regression without bootstrapping. Simple linear regression without bootstrapping produces results based on a single sample. Bootstrapping is a nonparametric approach to effect-size estimation and hypothesis testing that makes no assumptions about the shape of the distributions of the variables or the sampling distribution of the statistic.

E-leadership has significant relationship with employee performance as $b = .4317, t > 1.96 \& p < 5\%$ which means that H1 is supported. E-leadership has significant relationship with AMO as $b = .5820, t > 1.96 \& p < 5\%$ which means that H2 is supported. AMO has significant positive relationship with employee performance as $b = .891, t > 1.96 \& p < 5\%$ which means that H3 is supported. In the last step, e-leadership is found insignificant relationship with employee performance as $b = -.0868, t < 1.96 \& p > 5\%$ which shows that H4 is not supported. It might be due to the fact is that size of the sample data. The coefficient value of b in this case is very low, it shows that the relationship between e-leadership & employees can become significant. The indirect effect of e-leadership on employee performance is $b = .518$ and $t > 1.96$.

Table: Regression Results

	Coeff	se	t	p	LLCI	ULCI
Constant	0.958	0.486	1.972	0.0545	-0.02	1.934
E-leadership – Employee performance (H1)	0.4317	0.1165	3.7049	0.0005	0.1974	0.6659
E-leadership – AMO (H2)	0.5820	.0650	8.9594	.0000	.4514	.7126
AMO – Employee performance (H3)	0.891	0.227	3.924	0.0003	0.434	1.348
E-leadership – AMO – Employee performance (H4)	-.0868	.1670	-.5198	.6056	-.4229	.2492

Discussion & Conclusion

The objective of this study was to investigate the relationship of e-leadership and employee performance. Further, this study also investigates the role of AMO in the relationship between e-leadership

and employee performance. Correlation and process macro is used to determine the results of the study. The correlation results showed that all the correlation in the study are positively correlated with each other. The value of correlation between e-leadership and AMO is .791, which shows good correlation. The

value of correlation between e-leadership and employee performance is .472. The correlation between AMO and employee performance is .641. It shows that both variables have good strength and are positively correlated. This shows that e-leadership and AMO are positively related with employee performance.

In order to confirm the hypothesis of the study, regression analysis through process macro-4 is used. E-leadership has significant relationship with employee performance ($b = .4317$, $t > 1.96$ & $p < 5\%$). The same results have been reported in literature that e-leadership has positive relationship with employee performance (Wiradendi, Solikhah, Fidhyallah & Lestari, 2020; Elyousfi, Anand & Dalmasso, 2021). E-leadership has significant relationship with AMO ($b = .5820$, $t > 1.96$ & $p < 5\%$). The literature also reports that e-leadership is positively related with AMO (DasGupta, 2011; Contreras, Baykal & Abid, 2020; Avolio, Kahai & Dodge, 2000). The third hypothesis of the study is that AMO has significant positive relationship with employee performance ($b = .8908$, $t > 1.96$ & $p < 5\%$). Different research studies in literature have also reported the same results (Shahzadi, Javed, Pirzada, Nasreen & Khanam, 2014; Asim, 2013). But e-leadership is found insignificant relationship with employee performance ($b = -.0868$, $t < 1.96$ & $p > 5\%$) in the presence of AMO. It might be due to the fact is that sample data is too small i.e. data of 300 respondents. The coefficient value of b in this case is very low, it shows that the relationship between e-leadership & employees may become significant. The indirect effect of e-leadership on employee performance is $b = .5185$ and $t > 1.96$.

Limitations & Future Directions

This study has investigated the relationship of e-leadership and AMO on employee performance. Data is only collected from 300 respondents. The sample is too small and this can mislead the results of the study and it is not possible to generalize the results on a large scale. Second, cross sectional research design is used in this study. It means that data is only collected once at a time. Future research is needed at different time intervals to check employee performance at different time frames using longitudinal research design. Further research is also needed in different sectors of the country. Employee performance can be managed

by other variables e.g. compensation benefits, growth opportunities, culture of the organization. Therefore, future research is needed to incorporate these variables while measuring employee performance.

REFERENCES

- Ambrose, M.L., Kulik, C.T., 1999. Old friends, new faces: motivation research in the 1990s. *Journal of Management* 25 (3), 231– 292.
- Artawijaya, I.G.P.A., and Darma, G.S. (2015). Evaluation The Effectivity of Performance Management Online System to Improving: The Employees Performance, *Jurnal Manajemen & Bisnis*, 12 (2): 73-89.
- Asim, M. (2013). Impact of motivation on employee performance with effect of training: Specific to education sector of Pakistan. *International journal of scientific and research publications*, 3(9), 1-9.
- Avolio, B. J., Kahai, S., & Dodge, G. E. (2000). E-leadership: Implications for theory, research, and practice. *The leadership quarterly*, 11(4), 615-668.
- Avolio, B. J., Kahai, S., & Dodge, G. E. (2000). E-leadership: Implications for theory, research, and practice. *The leadership quarterly*, 11(4), 615-668.
- Bendoly, E., Hur, D., 2007. Bipolarity in reactions to operational ‘constraints’: OM bugs under an OB lens. *Journal of Operations Management* 25 (1), 1-13.
- Contreras, F., Baykal, E., & Abid, G. (2020). E-leadership and teleworking in times of COVID-19 and beyond: what we know and where do we go. *Frontiers in Psychology*, 3484.
- DasGupta, P. (2011). Literature review: e-Leadership. *Emerging Leadership Journeys*, 4(1), 1-36.
- Elyousfi, F., Anand, A., & Dalmasso, A. (2021). Impact of e-leadership and team dynamics on virtual team performance in a public organization. *International Journal of Public Sector Management*.
- Gist, M.E., Mitchell, T.R., 1992. Self-efficacy: a theoretical analysis of its determinants and malleability. *Academy of Management Review* 17 (2), 183–211.

- Gurr, D. (2006). E-leadership. In *Encyclopedia of virtual communities and technologies* (pp. 161-165). IGI Global.
- Latham, G.P., 2006. *Work Motivation*. Sage, Thousand Oaks, CA.
- Lawshe, C.H., 1945. Eight ways to check the value of a training program. *Factory Management and Maintenance* 103, 117-120. Leonard-Barton, D., 1992. The factory as a learning laboratory. *Sloan Management Review* 34 (1), 23-38.
- Mitchell, T.R., Daniels, D., 2003. Motivation. In: Borman, W.C., Ilgen, D.R., Klimoski, R.J. (Eds.), *Comprehensive Handbook of Psychology*, vol. 12. Wiley, New York, pp. 225-254
- Shahzadi, I., Javed, A., Pirzada, S. S., Nasreen, S., & Khanam, F. (2014). Impact of employee motivation on employee performance. *European Journal of Business and Management*, 6(23), 159-166.
- Wiradendi Wolor, C., Solikhah, S., Fidhyallah, N. F., & Lestari, D. P. (2020). Effectiveness of e-training, e-leadership, and work life balance on employee performance during COVID-19. *Journal of Asian Finance, Economics and Business*, 7(10).
- Wyatt, S., 1934. *Incentives in Repetitive Work: A Practical Experiment in a Factory*. Industrial Health Research Board Report no. 69. Industrial Health Research Board, London, UK

