



Effect of Information Technology, Training, and Compensation on Employee Work Motivation

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Submission Info:

Received: 12 April 2021

Revised: 25 April 2021

Published: 08 May 2021

Keyword:

Information Technology, Training, Compensation, Motivation.

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Abstract

This study aims to analyze 1) the effect of information technology, training, and partial compensation on employee performance at the Makassar City DPRD Secretariat. 2) Analyze the effect of information technology, training, and compensation simultaneously on the performance of employees at the Makassar City DPRD Secretariat. 3) Which variable has the most influence on the performance of the employees at the Makassar City DPRD Secretariat. The study results concluded that: Partially, information technology, training, and compensation have a positive and significant effect on work motivation at the Makassar City DPRD Secretariat. This means that the use of information technology, training, and compensation can increase work motivation. Simultaneously, it shows that the variables of information technology, training, and compensation affect work motivation, which means that the increase in the use of information technology, training, and compensation will affect the growth in motivation. Partially, it shows that the information technology variable has a dominant effect on work motivation; this indicates that the better the use of technology will further increase employees' work motivation at the Makassar City DPRD Secretariat.



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1. Introduction

Based on the phenomenon of the Makassar City DPRD Secretariat office employees, it shows that work motivation still needs to be improved. This indicates that most employees find it challenging to increase their cause due to their low mastery of information technology due to insufficient information technology support. The provision of training carried out by government organizations/agencies to encourage, stimulate, and support employees improve their competence: less and the provision of compensation that has not been maximized (Carignani, 2000; Liao et al., 2015; Maurer & Chapman, 2013). In an organizational environment, information technology is an indispensable tool. Imagine how a company can grow and develop without information technology (Chiniara & Bentein, 2016; Lestari et al., 2020; Weaven et al., 2021). On the other hand, to facilitate the delivery and receipt of information within an organization, communication tools are needed following the organization's needs. The implementation of Management Information Systems is an absolute necessity for

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organizations. It can be a competitive advantage to get high priority to support employee work motivation, and training is essential in an agency's efforts to achieve its goals. Training is needed to improve employee skills at work and master information technology (R. J. Stone, 2019). In contrast, work motivation is an impetus that appears in employees to work based on work standards within a certain period that has been set. Motivation is a force, both from within and outside, that encourages a person to achieve specific predetermined goals. Motivation is one of the roles that leaders must play with their subordinates. Leaders motivate employees to produce specified performance, provide support, help, and direct employees in completing their work; a leader must have the right way to encourage employees to achieve high work performance.

The training program is expected to motivate employees to carry out their work so that they can improve employee performance because one of the training objectives is to improve the quality of work of organizational members. With employee performance that continues to increase, there is motivation to spur creation which will automatically affect performance patterns of accelerating administrative / company goals (Hasjrif, 2011). Another variable that affects work motivation is the provision of compensation. Compensation is a financial and non-financial reward that the organization gives as remuneration for one's work. Handoko (2009) argues that compensation is anything that employees receive in return for their work. Furthermore, it is said that compensation is essential for employees as individuals because the amount of compensation reflects the size of the value of their position among the employees themselves, their families, and the community. Based on the descriptions that have been described above, the problems in this study are formulated: 1) Do information technology, training, and compensation partially affect the performance of employees at the Makassar City DPRD Secretariat. 2) Do information technology, training, and compensation simultaneously affect the performance of employees at the Makassar City DPRD Secretariat 3) Which variable has the most influence on employee performance at the Makassar City DPRD Secretariat?

The Information Technology

According to Cheng et al., (2020), information technology is limited to computer technology (hardware and software), which is used to process and store information and includes communication to transmit data. Meanwhile, according to Chiniara & Bentein (2016), the definition of information technology is a technology that combines computer computing with high-speed communication lines that carry data, voice, and video. According to Asmara et al., (2019), "The term wireless computer network is a translation of the term wireless networking, which means data communication in a computer network that does not use cables as a transmission medium. This network makes use of microwaves or electromagnetic waves as a transmission medium". Wireless information technology can also be called mobile communication using the wireless communication model or wireless communication. In principle, every mobile communication medium (starting now referred to as a mobile device) uses a separate radio channel to communicate with the cell site. The cell site is an area that provides communication with many mobile devices at once.

Training

haerani et al., (2020) states that efforts to improve the quality of human resources through education and training prevent organizations from dealing with incompetent employees, especially in disciplinary issues and employees with outdated skills. Training is an organizational effort deliberately carried out to improve current and future performance by increasing capabilities. Tan, (2014) defines education and training as an activity of an organization that aims to improve and develop the behavioral attitudes, skills, and knowledge of employees following the organization's wishes. Gupta et al., (2020) argues that the reasons and the need for training and education for civil servants include: The need for reforms and improvements in the administration sector to cope with and support socio-economic development. Then it needs to be given a variety of bare orientations, introductions to various administrative and management techniques that are felt to be weak; Expansion or increase of government functions that must be carried out; It is a fact that there is still insufficient skilled personnel. The keys to the success of the implementation of education and training, namely: Participants, education, and training (Ioan, 2014). In this case, a selection of followers of education and training must be carried out if you want to get profitable results. Instructors are important figures in the implementation of education and training programs. A competent and competent instructor or instructor gives immense assistance to the success

of education and training. Capable instructors can be obtained from the body of the organization and the outside of the organization. Period of education and training. The length of the education and training period depends on the level of proficiency obtained by the participants, the learning ability of the education and training followers, and the education and training media used. Educational and training materials. It is usually desirable to have written material for instructions, checks, and references. However, in cases where the course is specific, the materials used should be straightforward as well. The education and training process, namely how educational and training activities are carried out. The transformation of knowledge and practice must run smoothly, and participants must be free to express their opinions (Andreeva & Garanina, 2017). There must be a calm atmosphere in learning in this process, and there must be flexibility for discussion. Education and training facilities, namely the availability of adequate facilities that do not reduce the enthusiasm of education and training participants, one of which is sufficient room conditions.

Compensation

The compensation is a wage or reward that applies to and arises from a person's job, which has two components, namely direct financial payments in the form of wages/salaries, incentives, commissions, and bonuses, as well as indirect expenses such as allowances (Akob et al., 2020). Finances such as insurance and vacation money. That compensation is anything that employees receive in return for their work. Furthermore, it is said that compensation is essential for employees as individuals because the amount of compensation reflects the size of the value of their position among the employees themselves, their families, and the community (Mappamiring et al., 2020; Quintana-Déniz et al., 2007; D. L. Stone et al., 2015). That compensation is a form of compensation given to workers, where the main component is salary. In its development, the structure of compensation can be in life insurance, health insurance, pension funds, vacation programs, and other forms of compensation (Ahmed et al., 2020). According to (D. L. Stone et al., 2015; Zhang & Mayes, 2018), compensation is any form of payment or remuneration is given to employees and in proportion to the employee's work. compensation is income in the form of money or goods, directly or indirectly received by employees as rewards or services provided to the organization (Clovis, 2018).

Motivation

Motivation is formulated as a willingness to carry out high efforts to achieve organizational goals, which is conditioned by efforts to meet specific individual needs (Haerani et al., 2020), a series of attitudes and values influence individuals to achieve particular things according to individual goals. Another opinion is that motivation results from internal and external processes to an individual, which causes enthusiasm and persistence in carrying out certain activities (Sapta et al., 2013). Based on the theoretical framework above, the authors propose the hypothesis following: 1) Information technology, training, and compensation partially influence the Work Motivation of the Makassar City DPRD Secretariat Staff. 2) Information technology, training, and compensation have a simultaneous effect on the Work Motivation of the Makassar City DPRD Secretariat Staff. 3) The most dominant compensation variable affects the Work Motivation of the Makassar City DPRD Secretariat Staff.

2. Research Method

Starting from the problems and research objectives, this type of research is quantitative research with a survey method with correlational analysis techniques to determine the effect of the relationship between the dependent variable and the independent variable. The study was conducted at the Makassar City DPRD Secretariat office. The research time is planned for one month, from September to October 2019. The population in this study is all of the Makassar City DPRD Secretariat offices. A total of 50 employees. Descriptive analysis is used to describe or describe compensation, competence, and discipline on job satisfaction. Quantitative data analysis techniques were obtained from the questionnaire results using multiple linear regression analysis (multiple regression analysis). Multiple linear analysis was carried out to see the effect of the independent variable (X) as indicated by compensation, competence, and discipline on the dependent variable (Y) as indicated by employee performance.

3. Result and Discussion

3.1. Result

Some of the instruments in ujicobakan, the correlation coefficient is determined by using computer-assisted correlation analysis (SPSS-22), it indicates that all the items are declared valid instrument (sig. r -calculated $<$ a 0.05), or the r calculated is $>$ 0.30, the reliability test is intended to determine the consistency of the instrument. All instruments are said to be reliable or have a high level of confidence, if these instruments provide consistent results. This means that the instrument is said to be reliable if it is tested on other subjects and at other times will also have the same results. The results of the reliability test of each variable can be seen in the following

Table 1. Reliability Test Results

Variable	Cronbach Alpha	Info
Information Technology (X ₁)	0.789	Reliable
Training (X ₂)	0.794	Reliable
Compensation (X ₃)	0.786	Reliable
Employee Performance (Y)	0.792	Reliable

Based on the calculation of the results The reliability test of each variable using the SPSS Version 22 program shows that all variables are realistic, because the alpha cronbach value exceeds 0.50.

3.2. Hypothesis test

Hypothesis testing is done using regression techniques. The results of data processing can be seen in the following table 2.

Table 2. Results of Multiple Regression

Model	B	T	P (sig)
Constant	0,092	0,698	0.488
Information Technology (X ₁),	0,397	5,175	0.000
Training (X ₂)	0,351	2,805	0.007
Compensation (X ₃)	0,282	2,337	0.022

From the table above obtained the regression equation $Y = 0.092 + 0.397X_1 + 0.351 X_2 + 0.282X_3$

3.3. F-test (Simultaneous Test)

F test is intended to determine whether the information technology, training and compensation variables together have an influence on work motivation.

Table 3. F-Test

Model	Sum of Squars	Df	Mean square	F	P
Regression	28,675	3	9,558	348,293	0,000
Residual	1,866	68	0,027		
Total	30,542	71			

Based on the tables get value of F statistic of 348.293 with a significance value of 0.000 is smaller than 0,05, it can be seen that simultaneously there is a significant influence between information technology, training and compensation on work motivation at the Makassar City DPRD Secretariat Office.

3.4. T-test (Partial Test)

This test aims to test the effect of independent variables (information technology, training and compensation) whether or not they have a significant effect on work motivation at the Makassar City DPRD Secretariat Office at a significance level of $\alpha = 5$ percent separately or partially. Here are the results of hypothesis testing t-test:

Table 4. T-Test Results

Model	B	T	P (sig)
Constant	0,092	0,698	0.488
Information Technology (X1),	0,397	5,175	0.000
Training (X2)	0,351	2,805	0.007
Compensation (X3)	0,282	2,337	0.022

Based Table 4 can be summarized as follows: The effect of information technology on work motivation at the Makassar City DPRD Secretariat Office based on the table above obtained a significance value of $0.000 < 0.05$, it is concluded that H1 is accepted, meaning that information technology has a positive effect on employee performance at the Makassar City DPRD Secretariat Office. The effect of training on work motivation at the Makassar City DPRD Secretariat Office based on the table above obtained a significance value of $0.007 < 0.05$, it is concluded that H1 is accepted, meaning that training has a positive effect on employee performance at the Makassar City DPRD Secretariat Office. The effect of compensation on work motivation at the Makassar City DPRD Secretariat Office based on the table above obtained a significance value of $0.022 < 0.05$, it is concluded that H1 is accepted, meaning that the work environment has a positive effect on employee performance. at the DPRD Secretariat Office of Makassar City.

3.5. Discussion

3.5.1. The Influence of Information Technology on work motivation

The results of the regression coefficient test obtained indicate that information technology has a positive and significant effect on work performance at the Makassar City DPRD Secretariat Office. This means that the better the technology is applied, it will directly affect work motivation. The results of this study are in accordance with the research conducted by Hasjrif S (2010) with the title "Analysis of Influencing Factors on the work motivation of employees at the Jember District Fire Service Office. The variables in this study are three independent variables, namely information technology, training and compensation, the dependent variable is employee performance. The results showed that the independent variables, namely information technology, training and compensation as meant in the model were able to increase employee motivation (y) by 97.9 while 2.1% was explained by other variables not intended in the model. Further research by Saiful A (2009) on the effect of information technology and competence on motivation, the analytical tool used is multiple linear regression analysis. The findings found that information technology and competency variables have an effect on motivation. After being tested by the F-test, it turns out that the F-calculated is greater than the F-estimated, indicating that the compensation is more dominant after being compared, among others, the regression coefficient (B) is greater than the other T-calculated.

3.5.2. The Effect of Training on Work Motivation

Results of the partial analysis show that training has a positive and significant effect on work motivation. This study is in accordance with the results of research by Natsir (2010), analyzing the effect of information technology and training on employee motivation at the Department of Transportation of Maros Regency, the number of samples used was as many as 65 employees using multiple regression analysis methods. The results of this study found that information technology and motivation have a positive and significant effect on employee motivation. Indira Latanro (2011), with the title "the influence of education, training and human resource development on motivation. The results showed that training activities had a significant influence on motivation, human resource development activities had a "moderately influential" relationship with motivation. The results of this study are also in line with what was stated by Fitriyadi (2010) who found that knowledge had a dominant

effect on work motivation. Likewise with Kartikawangi (2011) in a journal entitled Characteristics of Human Resources Needed by the Industrial World / Organization. The results of this study indicate the basic characteristics needed by the Department of Transportation include general characteristics (demographics) and special characteristics which include Knowledge, Skill, Ability and Others (KSAOs). The same thing was stated by Nasution (2012) which states that knowledge is related to the development and behavior change being educated. Knowledge is related to the transmission of knowledge, attitudes, beliefs, skills and other aspects of behavior to employees. Education is the process of teaching and learning patterns of human behavior according to what is expected by society. Thus, through education a person is expected to gradually experience changes, either directly or indirectly, so that the maturity process will occur in humans and abilities. Through education, a person will also improve the quality of his life and be able to overcome problems in his life.

3.5.3. *The Effect of Compensation on Work Motivation*

Compensation is anything that employees receive in return for their work. The effect of compensation on employee performance is obtained t-calculated 2.337 with a significance of 0.022 indicating that compensation (X1) has a positive and significant effect on work motivation (Y). Thus it can be concluded that Ho is rejected and Ha is accepted, so that the hypothesis which states that there is a positive and significant influence between compensation on work motivation is accepted. The existence of this influence shows that if the salary is in accordance with the duties, responsibilities and positions, the employee's performance will also increase. This statement is in accordance with what was stated by Handoko (2010), that performance is influenced by employee compensation because the amount of compensation provided is a reflection of the measure of the value of the work of employees who work in an organization. Employee compensation is a measure of employee performance. Compensation is given after employees produce certain performance or employees succeed in exceeding the targets set by the company. In this case, the leadership must act fairly and firmly in providing compensation if the employee is performing well. According to Sanjaya and Lasmini (2012), without compensation in the form of incentives, bonuses and allowances, employee performance will be low or decreased, causing problems that will disrupt the running of the company. Compensation can provide a good contribution to the performance of employees and the company. Compensation is also an important factor in efforts to improve employee performance and as an incentive in encouraging employees to achieve company goals. The findings of this study are supported by research results from Mawar (2012) which show that compensation has an effect on employee performance.

4. Conclusion

Based on the results of the research and discussion that has been stated above, several conclusions can be drawn as follows: Partially information technology, training and compensation have a positive and significant effect on work motivation at the Makassar City DPRD Secretariat Office. This means that the use of information technology, training, and compensation can increase work motivation. Simultaneously it shows that the variables of information technology, training and compensation have an effect on work motivation, which means that an increase in the use of information technology, training and compensation will affect the increase in motivation by 93.9%. Partially it shows that the information technology variable has a dominant effect on work motivation, this shows that the better the use of technology will further increase the work motivation of employees at the Makassar City DPRD Secretariat Office. It is necessary to use information technology in the implementation of work, especially the procurement of computers accompanied by an internet network so that it makes it easier for employees to carry out their duties. The need for more employees to take part in training that can increase work motivation in carrying out their duties. There needs to be an increase in compensation in the form of providing additional incentives to employees.

References

- Ahmed, S., Jafri, L., Majid, H., Khan, A. H., Ghani, F., & Siddiqui, I. (2020). Challenges amid COVID-19 times - Review of the changing practices in a clinical chemistry laboratory from a developing country. *Annals of Medicine and Surgery*, 55(June), 300–304. <https://doi.org/10.1016/j.amsu.2020.06.004>
- Akob, M., Arianty, R., & Putra, A. H. P. K. (2020). The Mediating Role of Distribution Kahn's Engagement: An

Empirical Evidence of Salesforce in Indonesia. *The Journal of Asian Finance, Economics and Business*, 7(2), 249–260.

- Andreeva, T., & Garanina, T. (2017). Intellectual Capital and Its Impact on the Financial Performance of Russian Manufacturing Companies. *Foresight and STI Governance*, 11(1), 31–40. <https://doi.org/10.17323/2500-2597.2017.1.31.40.2017>
- Asmara, I., Hasmin, T., Ansir, L., Aditya, H. P. K. P., & Aan, A. (2019). How Digital Technology Driven Millennial Consumer Behaviour in Indonesia. *Journal Distribution Science*, 17(8), 25–34.
- Carignani, V. (2000). Management of change in health care organisations and human resource role. *European Journal of Radiology*, 33(1), 8–13. [https://doi.org/10.1016/S0720-048X\(99\)00130-8](https://doi.org/10.1016/S0720-048X(99)00130-8)
- Cheng, C.-Y., Chien, M.-S., & Lee, C.-C. (2020). ICT diffusion, financial development, and economic growth: An international cross-country analysis. *Economic Modelling*. <https://doi.org/https://doi.org/10.1016/j.econmod.2020.02.008>
- Chiniara, M., & Bentein, K. (2016). Linking servant leadership to individual performance: Differentiating the mediating role of autonomy, competence and relatedness need satisfaction. *Leadership Quarterly*, 27(1), 124–141. <https://doi.org/10.1016/j.leaqua.2015.08.004>
- Clovis, S. H. (2018). Strategic planning. In *Introduction to Homeland Security*. <https://doi.org/10.4324/9780429499685>
- Gupta, H., Kusi-Sarpong, S., & Rezaei, J. (2020). Barriers and overcoming strategies to supply chain sustainability innovation. *Resources, Conservation and Recycling*, 161(June), 104819. <https://doi.org/10.1016/j.resconrec.2020.104819>
- Haerani, S., Sumardi, Hakim, W., Hartini, & Putra, A. H. P. K. (2020). Structural Model of Developing Human Resources Performance: Empirical Study of Indonesia States Owned Enterprises. *The Journal of Asian Finance, Economics and Business*, 7(3), 211–221.
- Ioan, D. (2014). Employment – Cause and Effect of the Economic Growth. *Procedia Economics and Finance*, 8(14), 268–274. [https://doi.org/10.1016/s2212-5671\(14\)00090-2](https://doi.org/10.1016/s2212-5671(14)00090-2)
- Lestari, S. D., Leon, F. M., Widyastuti, S., Brabo, N. A., & Putra, A. H. P. K. (2020). Antecedents and Consequences of Innovation and Business Strategy on Performance and Competitive Advantage of SMEs. *The Journal of Asian Finance, Economics and Business*, 7(6), 365–378.
- Liao, S., Chou, C. Y., & Lin, T. H. (2015). Adverse behavioral and relational consequences of service innovation failure. *Journal of Business Research*, 68(4), 834–839. <https://doi.org/10.1016/j.jbusres.2014.11.037>
- Mappamiring, M., Akob, M., & Putra, A. H. P. K. (2020). What Millennial Workers Want? Turnover or Intention to Stay in Company. *The Journal of Asian Finance, Economics and Business*, 7(5), 237–248.
- Maurer, T. J., & Chapman, E. F. (2013). Ten years of career success in relation to individual and situational variables from the employee development literature. *Journal of Vocational Behavior*, 83(3), 450–465. <https://doi.org/10.1016/j.jvb.2013.07.002>
- Quintana-Déniz, A., Beerli-Palacio, A., & Martín-Santana, J. D. (2007). Human resource systems as antecedents of hotel industry market orientation: An empirical study in the Canary Islands, Spain. *International Journal of Hospitality Management*, 26(4), 854–870. <https://doi.org/10.1016/j.ijhm.2006.07.007>
- Sapta, A., Hermawan, A., Hubeis, M., & Affandi, M. J. (2013). (*Training of Emotional Intelligence and Spiritual Intelligence*) *To Organizational Commitment and Job Satisfaction*. 11(1), 40–54.
- Stone, D. L., Deadrick, D. L., Lukaszewski, K. M., & Johnson, R. (2015). The influence of technology on the future of human resource management. *Human Resource Management Review*, 25(2), 216–231. <https://doi.org/10.1016/j.hrmr.2015.01.002>
- Stone, R. J. (2019). Human Resource Management : Personnel Human Resource Management. *Harvard Business Review*.
- Tan, E. (2014). Human Capital Theory: A Holistic Criticism. *Review of Educational Research*, 84(3), 411–445. <https://doi.org/10.3102/0034654314532696>
- Weaven, S., Quach, S., Thaichon, P., Frazer, L., Billot, K., & Grace, D. (2021). Surviving an economic downturn: Dynamic capabilities of SMEs. *Journal of Business Research*, 128(June 2018), 109–123. <https://doi.org/10.1016/j.jbusres.2021.02.009>
- Zhang, Y., & Mayes, D. G. (2018). The performance of governmental venture capital firms: A life cycle perspective and evidence from China. *Pacific Basin Finance Journal*, 48(February), 162–185. <https://doi.org/10.1016/j.pacfin.2018.02.002>