

IM Effectiveness and Reliability to Employee's Performance in Universities in Pekanbaru

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Abstract. *In educational institutions such as universities, use of the smartphones, especially the Instant Messaging (IM) application, allowing employees, including lecturers are able to communicate and share the information anytime and anywhere. This research discussed how IM effectiveness and reliability in increasing employee's performance. The used outcome regression analysis indicated that based on IM effectiveness and reliability, employee's performance increased by using IM assistance in their working activities. The outcome is expected to provide an overview and understanding of the importance in using technology such as IM in increasing employee performance in universities in Pekanbaru.*

Keywords: *Instant messaging, effectiveness, universities, employee, performance.*

Abstrak. *Pada lembaga pendidikan seperti Universitas, penggunaan smartphone terutama aplikasi Instant Messanging (IM) memungkinkan antar karyawan, termasuk dosen untuk dapat berkomunikasi dan berbagi informasi kapan saja dan di mana saja. Dalam penelitian ini dibahas bagaimana efektivitas dan kehandalan IM dalam meningkatkan kinerja karyawan. Hasil analisis regresi yang digunakan menunjukkan bahwa berdasarkan efektifitas dan kehandalan IM, kinerja karyawan mengalami peningkatan dengan menggunakan bantuan IM dalam bekerja. Hasil penelitian ini diharapkan dapat memberikan gambaran dan pemahaman akan pentingnya penggunaan teknologi seperti IM dalam meningkatkan kinerja karyawan pada Universitas di Pekanbaru.*

Kata kunci: *Pesan instan, keefektifan, universitas, karyawan, kinerja.*

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Introduction

As a part of technological developments, communication technology also has a rapid progress. Now, communication technology is often used in the workplace. Commonly, communication technology has various advantages, e.g., making the communication efficiently and accessibly (Cavazotte, Heloisa Lemos, & Villadsen, 2014). The use of Email, mobile telephones, and laptops are commonly used technologies by organizations to make the job more flexible and productive (Korunka & Hoonakker, 2014). These communication technologies make an extensive area of work and as an alternative admitting employees to work in or outside of regular work time in their preferred places (Kallionpää, 2017).

Cavazotte found a highly ambiguous role played by communication technology at workplaces. He conveyed appreciation for the smartphone regarding its portability and easing the operation, making them possibly to eliminate the place and time restrictions. The latest of flexibility, speed, and accuracy in data management gave the users a sensation of greater control and able to be better exercise their competences (Cavazotte et al., 2014).

A survey results from APJII mentioned that the Mobile users in Indonesia by 2014 was 37.6 million users, increased in 2015 as much as 52.9 million users, 2016 as many as 62.6 million users and predicted to continue for growth in 2017 (72, 5 million users), 2018 (81.7 million) and 2019 as many as 91.6 million users (APJII, 2017). In daily work life, IM technology has influenced the competencies, self-awareness, and relational expectations of the digital workforce. These developments can be considered to a positive influence. Employees have a world of information at their fingertips, collaborate to colleagues across the globe, and deliver the products by increasing the capabilities but reducing costs (DURSO & Pierce, 2009), (Sheer & Rice, 2017).

Lebbon explained that today's workers are more accustomed to IM and the emergence of IMs in the workplace increases the frequency of use by co-workers, family, and friends for days by considering the interruptions. For that reason, it needs a serious question and considers further examination, to determine if IM is no longer disruptive to today's workers (Lebbon & Sigurjónsson, 2016).

By the increase in mobile users, mainly IM, it could have an impact on the employees' effectiveness. Effectiveness is the result in making decisions that lead to do something right, which helps to meet a company's mission or goal achievement, and relates to predetermine outcomes. Employee effectiveness is the beginning of organizational success because of the effectiveness and leadership of individuals that produce group-level effectiveness, which then becomes the goal of the organization (Srihongrung, 2011).

Related for the leadership, leaders have an essential role concerning maintaining and ensuring that employees are in a ready-to-work condition as well as possible to create expected work effectiveness (Jiang, Lin, & Lin, 2011). Effectiveness is also influenced by an organizational commitment to treating employees as a valuable asset. Many things can be done such as providing training to upgrade skills, appropriate salary, job insurance and health, career assurance, retirement allowance, etc. If it can be fulfilled, employees will be encouraged to work harder and more effectively, and it is possible for employees to volunteer to work with more workload if needed at a particular time (Kum, Cowden, & Karodia, 2014).

The use of IM spreading in all areas including in education. In university, This instant communication between groups of students and between students and teachers has become familiar during the last decade through various channels: Email, SMS, Facebook groups, Twitter, and recently WhatsApp (Hartati, Rahmalina, & Arisandi, 2018).

Nowadays Organizations also use IM as a tool for creating collaboration and communication. IM has changed the contemporary work environment by facilitating engagement in more than one activity simultaneously, also termed multitasking (Pazos, Chung, & Micari, 2013). As an organization, universities have an essential role in technological development. the use of IM in universities give a contribution to its employees performances. According to previous proved that Along with the increasing of IM usage in the educational area, IM provides the impact of lecturer performance and affect each other. That's why this IM become an interesting issue to be examined, and this research aims to show how the influence of IM to the performance of employees at the universities in Pekanbaru, and also gives an idea that IM is a beneficial technology for an education purpose (Hartati & Arisandi, 2017).

The use of mobile IM has effectiveness for the employee in the workplace, especially in universities . Some things can be offered by the IM application so that the work becomes more effective: continually communication can be established, easing the coordination, time management, etc. "(Sarker et al., 2012). This effectiveness does not only apply to employees but lecturers and students too, research in their learning activities, etc. '(Tang & Hew, 2017). One way is to add emoticons combined with text (Hsieh & Tseng, 2017) so that IM can also create closer interpersonal social relations (Karapanos, Teixeira, & Gouveia, 2016).

By the reliability of IM on the effectiveness of employee work, it is undeniable that the use of mobile IM applications dominates in the daily life. Communication in the university environment will be a lot by using IM, coordination, and instruction can be more quickly delivered through IM. It can be said that the smartphone via the mobile IM application has changed the way of our work and daily social activity (Montag et al., 2015).

Although the use of IM has been significant, there are still several factors that can be key in the sustainable use of IM. Among them are the IM user experience, the influence of the user's social environment, and the economic factors of employees in the work environment in universities (Ogara, Koh, & Prybutok, 2014).

IM Effectiveness, IM Reliability, and Employee Effectiveness

IM is an application for smartphones; the users is able to exchange images, videos, and audio or written messages using their Internet connection. IM has positioned itself as a superior alternative for SMS messaging; IM doesn't only rely on the active Wi-Fi network, but it can be also from cellular data "(Barhoumi, 2015). IM is widely used, and many choices of the application can be used such as Whatsapp, Telegram, Line, etc. By using IM, people can get real-time communication and conversation (Church & de Oliveira, 2013). IM has become one of the conventional communication tools used for personal interests and corporate needs. IM is also an useful tool especially who do to prefer the work in a virtual environment. Using IM in the virtual environment of work has many advantages: It allows team members to maintain the mostly synchronous channel for interactions throughout the working day, allowing colleagues to contact each other for the posting questions and clarifications immediately, and so contributing to the idea of a shared working environment virtually (Darics, 2014).

With IM application, activities to share any content will be fun and familiar to do so that the exchange the information at educational institutions can be done quickly (Baruah, 2012). Of course, this activity is based on the fact that humans are social being that is prefer to share with others. Sharing activities using the IM application also will create Usefulness in social life and richness in media content in daily activities, particularly in educational institutions, not just relying on telephone conversations or text messages (Anandarajan, Zaman, Dai, & Arinze, 2010).

IMs which are operated for the mobile devices should have the reliability aspect, surely, all features must support activity user and regularly updated from the vendors. Besides that, the IM apps existence have been already compatibility with the device user and capability too in network interoperability from 2G, 3G, 4G onwards (Sahami Shirazi et al., 2014). In addition to features, to support the reliability of IM equipped by the end-to-end encryption that allows messages sent encrypted so that the security of information can be maintained and the accuracy of information can be relied (Schrittwieser et al., 2012).

There was no doubt that the use of technology in educational institutions has an impact on work performance. Although the use of IM has the potential to disrupt their work, some previous research explained that IM is reliable in improving employee's effectiveness. Most employees prefer to access news and information related to work through IM and e-mail for easiness reasons (Ruck & Welch, 2012). Besides that, each employee has the different communication skills. Not all employees can communicate verbal well, so intermediary media such as IM applications are needed as a tool in communication so that information can be conveyed well and the effectiveness of work can be achieved (Chory, Vela, & Avtgis, 2016). The hypotheses proposed in this research are mentioned as follows: IM Effectiveness and IM Reliability affects Employee Effectiveness

Research Method

This research was assisted by four persons as assistants during the mid of 2017 until the end of 2017 to visit the universities and campuses along Pekanbaru. Pekanbaru has six major in universities and 34 places (academy, polytechnic, university, and other higher educational institution). For the limitation of this research, we chose 11 famous colleges.

The assistants approached a total of 135 respondents; 131 of them has completed writing the questionnaires and generating 97,03% responses. All respondents reported using IM in daily activities as communication. They also mentioned the frequency of using IM during working hours, average hours a day spent communicating using IM, how reliable an IM influenced their office time, and how effective an IM could help their job.

This research was quantitative research by using the data in the form of numbers and analytical processed by statistics approach. According to Bettis, the quantitative method can expertly explain many phenomenons. These approaches can be used to rule out plausible explanations and provide evidence much more consistent with the proposed statement (Bettis, Gambardella, Helfat, & Mitchell, 2014). Sugiyono also described a Quantitative method as long enough used as a method for research. The quantitative way also referred as a positivistic method, scientific method, and discovery method, because of a quantitative approach based on the philosophy of positivism and have rules of experimental as concrete or empirical, objective, measured, rational, systematically and can find or create new science and technology (Sugiyono, 1999). This quantitative method considered as the best method that has been chosen in this research.

This research used regression analysis that could state the scale of the influence between independent variables (x) to the dependent variable (y). The x variables in this research were IM effectiveness (x1) and reliability of IM (x2), while the y variable was employee effectiveness. The three variables can be described in the path analysis as follows:

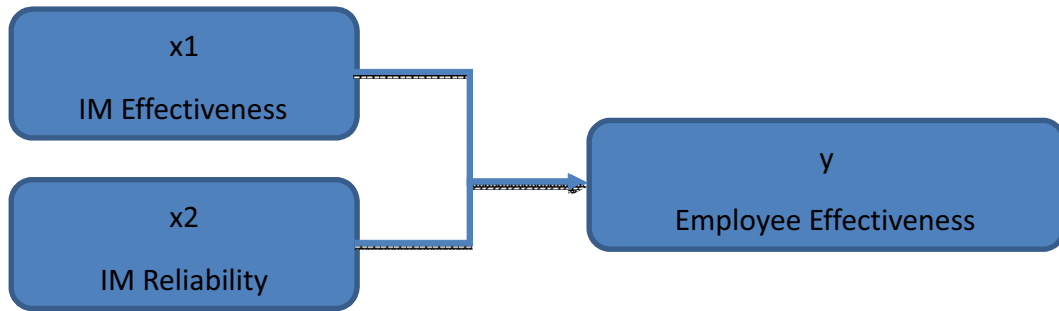


Figure 1.
Path Analysis

Results and Discussion

Respondents in this research were productive age, between 20-55 years old, they worked as

lecturer and administrative staff in universities in Pekanbaru. The table tabulation data as follows.

Table 1.
Tabulation Data

| | | Gender | | Total |
|--------------------|----------------|--------|--------|-------|
| | | Male | Female | |
| Educational level. | Doctor | 2 | 0 | 2 |
| | Master | 51 | 24 | 75 |
| | Bachelor | 23 | 24 | 47 |
| | Diploma & Etc. | 5 | 2 | 7 |
| Total | | 81 | 50 | 131 |

We took the error value (α) of 5% or 0.05. Based on the research hypothesis that had been described in the introduction, we made a statistical hypothesis to the existing hypothesis. H_0 declares to reject the hypothesis and H_a which states to support the hypothesis (Martin & Bridgmon, 2012).

The tests were performed using a regression test. Regression test intended to see how far the independent variables (x1 and x2) affected y variables and how the level of influence (Chatterjee & Hadi, 2015). The results can be seen in the following table:

Table 2.
Regression Test Result

| Model | Unstandardized Coefficients | | Standardized Coefficients Beta | t | Sig. |
|--------------|-----------------------------|------------|-----------------------------------|-------|------|
| | B | Std. Error | | | |
| 1 (Constant) | 5,108 | 1,327 | | 3,850 | ,000 |
| total_x1 | ,406 | ,111 | ,333 | 3,644 | ,000 |
| total_x2 | 1,321 | ,204 | ,592 | 6,484 | ,000 |

a. Dependent Variable: total_y

Testing the hypothesis

Based on the regression test result in table 2, the obtained significance value is 0.000 for the x1 variable, smaller than the specified error value of 0.05. This regression test indicates that IM Effectiveness affect Employee Effectiveness. Likewise, for the x2

variable in table 2, the obtained significance also supported the finding of the t-test (0,000), smaller than the error value set that is 0,05. So we can be sure that IM Reliability influences Employee Effectiveness. The result of regression testing on hypothesis states that the proposed hypothesis is acceptable (H_a).

Table 3.
ANOVA Test

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 26877,445 | 2 | 13438,723 | 293,558 | ,000 ^b |
| | Residual | 5859,685 | 128 | 45,779 | | |
| | Total | 32737,130 | 130 | | | |

- a. Dependent Variable: total_y
- b. Predictors: (Constant), total_x2, total_x1

The next test was by testing ANOVA. The final result of ANOVA analysis was the F test. The results obtained in the ANOVA test in Table 3 were 293,558, more significant than the F value

determined for the number of respondents (3.065296). This result stated that IM Effectiveness and IM Reliability influence Employee Effectiveness.

Table 4.
R Square Result

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | ,906 ^a | ,821 | ,818 | 6,76600 |

- a. Predictors: (Constant), total_x2, total_x1

As a justification for the result of the significance of variable x to y, it is necessary to see the value of the determination coefficient obtained (R Square). R Square value can be used to predict how big the contribution of variable X to variable Y with the condition of the F test and t-test has been stated significant. From R square result in table 4, it is found that value of R square is 0,821 which means IM Effectiveness and IM Reliability affect Employee Effectiveness is 82,1%, and the rest is influenced by the other factors. The results are certainly in line with previous studies regarding the use of IM. IM is undeniably influencing the way we communicate,

there are pros and cons related to the use of IM especially in higher education. even though it is considered to be disturbing and distracting the employees while working, people living in cities are required to be able to do multitasking job and able to communicate anytime and anywhere. IM, which is supported by advances in communication technology, is now answering the challenge. communication, instruction, even reports can be delivered quickly and more varied. of course, this can encourage universities to improve the effectiveness of their employees.

Based on the results that have been conducted, it cannot be denied that the existence of IM effectiveness and IM reliability in enhancing employee effectiveness has a significant influence in daily work life for universities or other higher institutional, particularly in Pekanbaru. The employees were become easily share information regarding their job anytime and anywhere. IM users in the higher education environment in Pekanbaru had different levels of education, different ages, and from various institutions. Although IM isn't an official standard in communicating in an educational institution, our findings indicate that the IM application is a communication tool that is always used. Employees in higher education in Pekanbaru no longer rely on voice calls, MMS or SMS in communicating but have used IM. Also, the internet infrastructure and ease of access to Wi-Fi are also the factors in the use of IM to be increased for employees who work in Universities in Pekanbaru.

But Some opinions, the IM application will bother the employees' work effectiveness. Employees will be busy with their mobile devices, less communication and coordination will happen, and social relations between employees will be disrupted because they are more focused on what they see on their gadgets. Disruption in the social aspect is feared to occur so that the culture and ways of communicating will change. Besides of social aspect disruption, other things are a concern when communicating with IM. Communication by IM is different from direct communication or video conference. The basis of IM communication using text and emoticons cannot represent a person's emotional state. Until now, based on our findings, there is no specific code of ethics or rules regarding the use of IM in the work environment specifically. But of course, the employees in the higher education in Pekanbaru know precisely how to communicate using IM with their fellow workers so that the intentions and objectives can be adequately conveyed.

Although IM has considered to change the way and culture in communication, the need for fast information in the digital era is required to do their daily work. Information, instruction, coordination is no longer delivered conventionally but is done using mobile IM applications anytime and anywhere. The feared use of IM that will interfere to the performance and effectiveness of Universities employees in Pekanbaru in doing their work by the results of this study is not proven. They still have social interaction with others, while the use of IM for coordination and information exchange can increase work effectiveness so that job targets can be carried out more quickly, effectively and efficiently.

Conclusion

IM technology provides solutions for these needs, where everyone can communicate and discuss both personal and IM groups. Thus, it will intensify the work effectiveness at the University in Pekanbaru by using IM application. Based on our findings using a regression test on some respondents in universities in Pekanbaru, there is no doubt that the use of IM is a tool to communicate, share information and help complete work even though IM applications have disadvantages such as potentially social disruptive and information obscurity.

We are realizes that not all aspects related to the use of IM in higher education can be discussed. cultural aspect could be a consideration to review for further study. Based on data from civil office, Pekanbaru is now inhabited by various ethnic, not only Malay, but also Minang, Javanese, Sundanese, Batak, Chinese, and others. They surely have a different style by communication using IM, so that it can influence the meaning of the delivered message from a sender.

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