

**Effect of Use of Enterprise Social Media (ESM) on Employee Agility  
(Study on State Civil Apparatus in Ngawi Regency)**

Nina Indiarmeta<sup>1</sup>, Joko Suyono<sup>2</sup>

<sup>1</sup>Faculty of Economics and Business - Sebelas Maret University, Indonesia

<sup>2</sup>Faculty of Economics and Business - Sebelas Maret University, Indonesia

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**Abstract**

This study aims to explain the effect of using Enterprise Social Media (ESM) on employee agility in an organization by including Enterprise Social Media (ESM) as a mediator, namely to explore the role of meta-knowledge, digital fluency, work skills, and IT skills. Conducted at the Ngawi Regency Regional Apparatus Organization, this study involved 532 respondents. This type of research is quantitative with strategies and data collection using survey research methods. The sampling technique was carried out using proportionate stratified random sampling. The data analysis technique used quantitative analysis using the Structural Equation Modeling-Partial Least Square (SEM-PLS) analysis technique version 3.0. The results show that the use of ESM affects employee agility, the use of ESM affects Meta-Knowledge, Meta-Knowledge affects employee agility, Digital Fluency moderates the effect of using ESM on Meta-Knowledge, work skills moderates the effect of using ESM on employee agility, IT proficiency moderates the effect of using ESM on employee agility, and Meta-Knowledge mediating the effect of using ESM on employee agility. Based on the results of the study, the following academic suggestions are proposed: (1) Further research is expected to conduct research on all ASN in other areas, (2) future research, it is expected not only to use the self-report instrument, but also to use the self-report instrument. using assessment methods from other sources. Thus, it is hoped that this can provide a comprehensive picture of the effect of using ESM and Meta-Knowledge on employee agility, and the role of Digital Fluency on Meta-Knowledge, as well as the role of work skills and IT proficiency as moderating variables on the effect of employee agility.

**Keywords:** Use of Enterprise Social Media (ESM), Employee Agility, Meta-Knowledge, Digital Fluency, IT Proficiency, Work Skills, SEM-PLS

**1. Introduction**

Higher competitive pressures trigger organizations to be able to adapt to rapid changes and shifts in the environment by paying attention to agility/agility (Qin & Nembard 2015). Workforce agility is believed to provide the benefits of improved quality, better customer service, learning curve acceleration, and economies of scope and depth. Reactive behavior on employee agility can be developed and make employees more proactive (Sherehiy, 2008). Basically there are two important aspects in employee agility (Chonko & Jones, 2005) namely the workforce is able to react and adapt quickly and precisely when there are changes; workforce can and is able to take advantage of changes in achieving organizational goals/benefits.

Agility has strong implications in organizational characteristics where agility requires a quick

response in the face of market changes due to uncertainty from the workplace, conditions, changes in work processes, and technology from employees. (Leonardi *et al.*, 2013). Companies that want to remain competitive should not focus on technology but must also pay attention to and conduct training for employees on the use of technology (Cao *et al.*, 2012).

The sophistication and speed of technological development in recent years has forced several organizations to make substantial investments such as Enterprise Social Media (ESM) and information technology. ESM is a group of digital technologies that collaborate to become wider (Leonardi & Meyer, 2015) as well as being able to become a facility for employees to share knowledge (Kwahk & Park, 2016). ESM can also be defined as “a web-based platform that employees can use to (1) communicate personally and globally within the organization; (2) implicitly or explicitly able to read the character of the partners; (3) create, edit, and sort both text and files to be sent; and (4) text messages, connections and files are communicated, uploaded and retrieved by employees in the organization at any time.

Several studies have found the benefits of using ESM for employees, Pitafi *et al.*, (2020) assume that if every employee has the ability to properly utilize the ESM feature, it will be very beneficial for the employee himself. Several organizations seek to take advantage of the use of ESM to support employee performance, because ESM itself has a function as a forum for socializing among employees to develop mutual trust and establish virtual communication as well as expand and increase knowledge sharing among employees (Cai *et al.*, 2018).

ESM technology that is increasingly developing turns out to be able to change the form of work communication between employees (Pitafi *et al.*, 2020). Some studies related to ESM have positive results on employees and organizations (Dittes & Smolnik, 2019). The use of ESM in the workplace makes researchers analyze the work results of employees who are affected by ESM, such as the agility of employees in responding and adapting to changes. (Cai *et al.*, 2018). Bala *et al.*, (2019) conducted research on the effect of using ESM on work dexterity and employee communication of an organization.

Some researchers have also found that the use of ESM can increase Meta-knowledge and have an impact on increasing employee performance (Wei *et al.*, 2020). Meta-knowledge is an expertise obtained from professional colleagues in a field (Engelbrecht, Johnston, & Hooper 2017).

The use of ESM will feel maximal if the user has the ability to master ESM correctly and precisely. Wei *et al.*, (2020) are motivated to investigate the shortcomings and limitations of each individual's ability by using the role of digital fluency or digital skills in ESM technology. Digital fluency is related to proficiency and has implications for using ESM technology.

The sustainability of an organization is determined by the presence or absence of employees who have work skills relevant to the individual's ability to adapt to change. Proficiency in using IT in the last decade cannot be ignored, in fact it has been considered to be one of the important pawns in various modern business perspectives. (Reich & Benbasat, 2000).

This study is a development of research from Pitafi *et al.* (2020) which focuses on employee agility and the use of ESM by examining the effect of work skills and IT skills possessed by employees. In addition to this, further research is expected to explore the mediation between the use of ESM and employee agility, and in this study will modify it by including Meta-knowledge as a mediator between the use of ESM and employee agility. Pitafiet *et al.*, (2020) also said that

in future research it is hoped that samples from other regions and have different cultural collectivities because previously the samples used came from China. This supports this research to take a sample of one organization that automatically has the same ESM features, so further research is carried out on ASN (State Civil Apparatus) at Regional Apparatus Organizations (OPD) in Ngawi Regency.

The speed of ASN in adapting to the environment will be very useful in fulfilling work targets. Article 56 of the Government Regulation (PP) Number 30 of 2019 concerning the Performance Assessment of Civil Servants which was ratified on April 26 explained that if the work target in one year is not met, the sanction of termination of work will apply. Measurement of the success of the bureaucracy can be seen from the public service process. Because the public service process plays an important role in realizing good governance and e-governance (Putra, 2018). The ability to master ASN technology is expected to continue to increase because Zimmermann *et al.*,(2018) predicts that 75% of jobs will always be related to science, engineering, mathematics and even technology and the internet of things.

The State Administration Institute mentioned the need for efforts to improve the competence of ASN so that they can work quickly, be responsive and have the courage to make decisions and find related ideas or solutions. Dr. Agus Heruanto Hadna, M. Si, who is an expert on Public policy at UGM, explained that digital mastery skills quickly and accurately are one of the basic pillars in improving ASN management (Media Indonesia, 2020).

The Ngawi Education and Training Personnel Agency (BKPP) noted that three ASNs were dismissed due to disciplinary actions and in the middle of early 2019 there were five ASNs who had been dismissed. Disciplinary behavior should receive guidance first before being sanctioned, but the related OPD leadership seems slow in reporting this which results in the coaching not being able to be carried out (Antara News.com, 2019). It can be seen that the leader's alertness in dealing with problems is still lacking even though a leader is an example for the employees under him. Therefore, this research will be carried out on all ASN at the Regional Secretariat, the Education Office, the Communication and Information Office and the Population and Civil Registration Service in Ngawi Regency. This research is expected to be able to evaluate the agility of ASN in dealing with unexpected and unexpected changes so that each OPD is getting better and develop in carrying out its role.

## **2. Theory & Hypotheses Development**

### **Employee Agility**

Employee agility is the ability of employees to respond quickly to changes that occur inside and outside the organization (Cai *et al.*, 2018). Employee agility leads to behavior that is responsive to changes that occur and allows employees to turn changes into opportunities to improve performance. Employee agility can be seen from the employee's ability to use and utilize ESM properly when unexpected changes occur (Pitafi *et al.*, 2020). Some evidence has been put forward by several previous researchers that a positive influence was found in the use of ESM on employee performance (Cao *et al.*, 2016; Moqbel *et al.*, 2013; Song *et al.*, 2019). Cao *et al.*,(2016) explained that employee performance is influenced by the use of ESM through knowledge sharing and trust

### **Enterprise Social Media (ESM)**

*Enterprise Social Media* (ESM) or corporate social media used by organizations to communicate, share knowledge, seek information and exchange ideas among employees. Several applications have been adopted by organizations to function as ESM such as DingTalk, Slack, Microsoft Team, Trello and Yanuner (Braojos *et al.*, 2019). Leonard *et al.*, (2013) concluded that ESM belongs to a digital platform that can be used between individuals in various ways such as uploading, sharing, editing and viewing various types of information.

#### ***Meta-Knowledge***

*Meta-Knowledge* is the ability and expertise of colleagues in a particular field. This can be explained that the possibility of employees can use or utilize the knowledge possessed by colleagues to ask for help in accessing special knowledge (J.Engelbrecht *et al.*, 2017).

#### ***Digital Fluency***

*Digital Fluency* described as an individual's ability to create and summarize digital information correctly obtained through digital information technology (Wang *et al.*, 2013).

#### **IT Proficiency**

IT skills have an important role in organizations such as knowledge sharing, interaction between employees or colleagues that can improve employee performance. Employees who have IT skills are able to be faced with finding the latest information related to trends, methods and even procedures (Pitafi *et al.*, 2020).

#### **Work Skill**

Work skills are individual abilities and skills in business that are useful for using the latest technology, problem solving, and interacting with colleagues and improving company performance. Therefore, work skills are EMPLOYEE AGILITY in continuing to achieve organizational goals (Pitafi *et al.*, 2020).

### **3. Hypotheses**

Earlier studies also suggest that learning activities at the employee/individual level are critical for an enterprise to be agile (Yuan & Woodman, 2010). In the context of IS, researchers consistently argue that employees' agility is an important component of organizational agility (Weill *et al.*, 2022; Fink & Neumann, 2007). (Tallon and Pinsonneault, 2011) further posited that IT use could improve employees' capability, which contributes later to organizational agility. Given all this, we argue that agility applies to an individual level as well. Due to its salience in composing organizational agility, we can keep the definition of organizational agility and apply it to the individual level. (Yusuf *et al.*, 2000) defined organizational agility as the ability to exploit competitive bases such as speed, flexibility, innovation proactivity, quality, and profitability by reconfiguring resources and best practices in a knowledge-rich environment to adjust to a fast-changing market environment.

The higher competitive pressure triggers the organization to be able to adapt to the rapid changes and shifts in the environment by paying attention to agility (Qin & Nembhard, 2015). Employee agility can be seen from the employee's ability to use and utilize ESM properly when unexpected changes occur (Pitafi *et al.*, 2020). Some evidence has been put forward by several previous researchers that a positive influence was found in the use of ESM on employee performance (Cao *et al.*, 2016; Moqbel *et al.*, 2013; Song *et al.*, 2019). Cao *et al.*,(2016) explained that

employee performance is influenced by the use of ESM through knowledge sharing and trust. Based on this statement, the following hypothesis can be drawn:

H1: The use of ESM has an effect on Employee Agility.

ESM knowledge management requires employees to be active in sharing knowledge, Leonardi and Meyer (2015) emphasize that awareness of communicating through ESM can increase Meta-Knowledge. In the communication between these individuals in the ESM platform that can be accessed and carried out every day will directly have a positive impact with Meta-Knowledge. This is confirmed by empirical research by Kanawattanachai and Yoo (2013), namely increasing Meta-Knowledge with communication between individuals has almost the same results as face-to-face communication.

H2: The use of ESM effects Meta-Knowledge.

Wei *et al.* (2020) found that the use of special knowledge possessed by coworkers would not be visible to other individuals without Meta-Knowledge. So that Meta-Knowledge enables employees to sort out and find co-workers who are experts in their fields to get the right information to respond to changes more quickly. Meta-Knowledge makes employees predict and be more selective in choosing the information needed in finding other related solutions. In addition, Meta-Knowledge can be used by managers in sorting out employees in terms of placement and assignment according to their work skills (Young Choi *et al.*, 2010). Based on this statement, the following hypothesis can be drawn:

H3: Meta-Knowledge effects Employee Agility

In the research conducted by Yan Li *et al.*, (2018) and Pitafi *et al.*, (2018), it is emphasized that the ability of employees can be seen from the efficient use of technology. Digital Fluency in this case is related to skills, critical thinking and the ability to use special knowledge. In a study conducted by Wei *et al.*, (2020) stated that Digital Fluency positively moderates the relationship between the use of ESM and Meta-Knowledge, where the efficiency of using technology is based on the ability of each individual. Several scholars have also reported that ESM usage increases the meta-knowledge of other employees, which in turn increases their work performance (Treem & Leonard, 2013; Flyverbom *et al.*, 2016. For instance, on the ESM platform, the exchange of contents between two individuals often appears on the wall of the third party, which improves the meta-knowledge of the third party. Specifically, meta-knowledge is the expertise of another coworker who is a professional in a specific field (Engelbrecht *et al.*, 2017). Meta-knowledge enables an individual to utilize more knowledge than they personally have by facilitating them to locate and thus access the domain-specific knowledge of others. Although meta-knowledge improves individual knowledge, it may have a double-edged role in the workplace. For instance, on the one hand, scholars have noted that meta-knowledge increases employee work efficiency because it allows individuals to know what other colleagues are doing (Leonardi & Meyer, 2015; (Kuegler *et al.*, 2015). On the other hand, scholars have also reported that meta-knowledge reduces individual performance since individuals cannot handle considerable information quickly and may make decision-making mistakes (Chen & wei, 2019). Based on this statement, the following hypothesis can be drawn:

H4: Digital Fluency moderates the effect of using ESM and Meta-Knowledge

Previous research Snell and Dean, (1992); Mullen and Schuerman (1990) explain the importance of work skills in the use of technology. The many changes in this globalization era require employee expertise in dealing with changes and technological developments which are useful for the sustainability of the organization in an increasingly competitive market. Pitafi *et al.*,(2020) The results show that EMPLOYEE AGILITY positively strengthen the relationship between ESM use and Employee Agility. ESM provides an open digital platform for communication and knowledge sharing, wherein employees exchange and communicate different task-unrelated information. Therefore, employees need IT competency to effectively cope and utilize the useful part of information. IT competency is defined as the expertise or familiarity of employees with IT tools and applications (Choi, 2016). IT competency refers to the technical and business expertise of employees, such as understanding business problems and the ability to develop IT solutions for these business problems (Wang, Chen, & Benitez-Amado, 2015).To achieve the requirement of Employee Agility (Wang, Yen, & Huang, 2011), an individual requires the timely processing of considerable information, which can be enhanced through various IT applications that can assist in the task through monitoring, meta-knowledge, and ESM systems (Kim *et al.*, 2016). Based on this statement, the following hypothesis can be drawn:

H5: Work Skill to moderate the effect of using ESM on Employee agility.

O'Brien, (2007) states that individual proficiency or proficiency in the use of IT affects individuals in sharing information and knowledge within the organization. In today's various tasks, employees have a lot to do with IT, so it will be seen that IT knowledge has an important role, especially in the use of ESM which is used as a communication tool between employees. Tasks and technology used by employees are synchronized so the organization can minimize information costs and will indirectly improve employee performance. Flexibility, accuracy and speed of employees in carrying out tasks are influenced by IT skills because IT skills support employees for the development and implementation of various information technology tools in monitoring and responding to unexpected changes (Pitafi *et al.*, 2020). Based on this statement, the following hypothesis can be drawn:

H6: IT Proficiency moderates the effect of using ESM on Employee agility.

*Meta-Knowledge* make individuals to always take advantage of other people's special knowledge than the knowledge they have, so that the information obtained will be wider. Increased Meta-Knowledge is expected to have an impact on increasing ESM usage. Therefore, individuals who have high sensitivity and observation will have high Meta-Knowledge as well. Increased frequency of using ESM among employees to exchange or share information and national events/events that impact their Meta-Knowledge and employee agility. Previous research, Wei *et al.*, (2020) showed the effect of using ESM on employee agility mediated by Meta-Knowledge. Based on this statement, the following hypothesis can be drawn:

H7: *Meta-Knowledge* mediate the effect of using ESM on Employee agility.

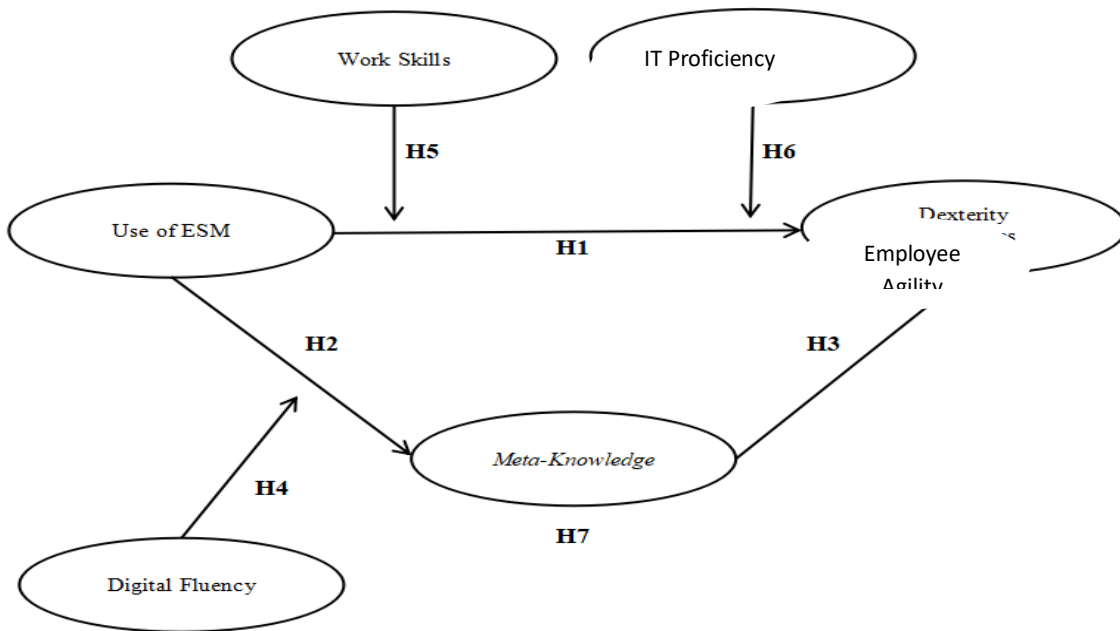


Figure 1. Framework

**4. Method**

This research is included in quantitative research which presents data in the form of numbers which are generally obtained from structured statements (Sekaran & Bougie, 2016). This research will use quantitative research with strategies and data collection will use survey research methods. Based on the time dimension, this research is categorized into cross sectional research, i.e. a study can be conducted in which data is collected only once, perhaps over several days or weeks or months, to answer research questions (Sekaran & Bougie, 2016). Research respondents were obtained using method of probability sampling, therefore, the sample is taken using a probability sampling method, that is, each element in the population has the same probability of being selected as a sample subject (Sekaran & Bougie, 2016). The sampling technique was carried out using proportionate stratified random sampling, where the representative of each stratum was done correctly so that the sample taken was of the stratum is proportional to the stratum share of the total population (Cooper & Schindler, 2014). So that every ASN stratum can be represented appropriately. The population in this study is ASN which has a level classification (stratum) according to the position, period of service, and achievements that have been achieved, which are usually referred to as groups. In government agencies, the ranks and classes of ASN are divided into 4 spaces. group I, group II, group III and group IV. This is stated in Presidential Regulation number 99 of 2000.

In this study, proportionate stratified random sampling, begins with the creation of an online questionnaire using a google form that will be sent via social media (whatsapp or email). The online survey method helps researchers to collect data faster (Ball, 2019). It's starting with making an online questionnaire with a google form, then a link from the questionnaire will be

given to my colleagues in four OPD then my colleague will share the link with other people / other colleagues who work in the same OPD and according to the sample criteria in this study, and at this stage each sample will be asked for their willingness to fill out and distribute questionnaires to their co-workers via social media whatsapp, whatsapp group, telegram and the like, the process will continue until the number of samples obtained is met.

Furthermore, the data that has been collected will be analyzed through quantitative analysis using the Structural Equation Modeling-Partial Least Square (SEM-PLS) analysis technique. Hair *et al.*, (2019) stated that SEM-PLS is a measurement technique that has two models, the first is the measurement model or the outer model, this measurement model defines how the construct is representative of the measured variable. The analysis was carried out using Smart PLS version 3.0.

**5. Finding and Discussion**

**Validity**

This test is to find out how well the measurement instrument is in one variable. In the validity test phase through the SEM-PLS approach, it includes testing Convergent Validity and Discriminator Validity

*1) Convergent Validity*

The standardized factor loading value >0.7 means that the individual reflexive guidelines are said to be valid, but if the factor loading value is found below 0.70 then the indicator must be discarded. shows 2 items that have a factor loading value below 0.7 (invalid), namely E1 and KK2. Then these items must be removed from the measurement model and then recalculated.

*2) Discrimination Validity*

In discriminant validity it will be seen how far the item differs between constructs. shows the value of cross loading as a result of the discriminant validity of the research model. Discriminant validity test in terms of the AVE value of each construct with the relationship between other constructs in the model. The results of the analysis of all constructs have values that indicate the square root of AVE is higher than the correlation between latent variables in the same column.

**Reliability**

In using the SEM-PLS approach, reliability testing will be carried out by analyzing the criteria from *Construct Reliability*.

	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>
<b>ESM</b>	<b>0.886</b>	<b>0.917</b>
<b>MK</b>	<b>0.922</b>	<b>0.939</b>
<b>DF</b>	<b>0.879</b>	<b>0.917</b>
<b>IT</b>	<b>0.920</b>	<b>0.940</b>
<b>KA</b>	<b>0.951</b>	<b>0.956</b>
<b>KK</b>	<b>0.789</b>	<b>0.867</b>

Source: primary data, processed (2022)



Measurement *Construct Reliability* will be done by looking at the value of *Cronbach's Alpha* and composite reliability with a minimum value of 0.70. The table shows good reliability test results, this is based on the value of Cronbach's alpha and composite reliability in each construct having a value of more than 0.70.

**Hypothesis**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV)	P Values
<b>ESM -&gt; ABILITY</b>	0.325	0.323	0.061	5.245	0.000
<b>ESM-&gt; MK</b>	0.519	0.526	0.092	5.648	<b>0.000</b>
<b>MK -&gt; ABILITY</b>	0.546	0.549	0.047	11,656	0.000
<b>ESM-&gt; MK -&gt; ABILITY</b>	0.456	0.449	0.092	4.956	<b>0.000</b>
<b>Moderating Effect 1 -&gt; MK</b>	0.359	0.362	0.070	5.156	<b>0.000</b>
<b>Moderating Effect 2 -&gt; ABILITY</b>	0.084	0.083	0.034	2,737	0.006
<b>Moderating Effect 3 -&gt; ABILITY</b>	0.077	0.071	0.041	2,068	0.032

Source: primary data, processed (2022)

Based on the results of hypothesis testing, it can be seen that the path coefficient value that connects the ESM use variable on employee agility is 5,245 and p-value of 0.000 so that it is declared significant (p-value is smaller than 0.05), it can be interpreted that the use of ESM has an effect on employee agility. This shows that the hypothesis (H1) in this study is supported.

Based on the results of hypothesis testing it can be seen that the path coefficient value that connects the variables using ESM on Meta-Knowledge mediated by Digital Fluency has a t statistic of 5,648 and a p value of < 0.000 so that it is declared significant (p-values less than 0.05), and with a positive original sample value, namely 0.519. It can be concluded that the better the use of ESM, the higher the Meta-Knowledge which is owned. This supports H2 in this study, so hypothesis 2 is accepted.

Based on the results of hypothesis testing in Table 4.23, it can be seen that the path coefficient value connecting Meta-Knowledge has a positive effect on Employee Agility of 11,656 and the p-value of 0.000 (p-value smaller than 0.05) so that the value is said to be significant. So it can be interpreted that the H3 hypothesis in this study is supported or in other words that Meta-Knowledge has an effect on employee agility.

Based on the results of hypothesis testing, it can be seen that the path coefficient value that connects the use of ESM to Meta-Knowledge moderated by Digital Fluency is 5.156 and the p-value is 0.000 so that it is declared significant (p-value smaller than 0.05). The coefficient value (original sample column) is negative 0.359. It can be concluded that Digital Fluency has a

positive effect in moderating the relationship between the use of ESM and Meta-Knowledge, it can be interpreted that the higher the Digital Fluency, the higher the relationship between the use of ESM and Meta-Knowledge.

Based on the results of hypothesis testing, it can be seen that the path coefficient value that connects the variable use of ESM to Employee Agility moderated by work expertise is 2.737 and p-value is <0.006 which means significant (p-value less than 0.05). This supports hypothesis 5 in this study, so hypothesis 5 is accepted.

Based on the results of hypothesis testing, it can be seen that the path coefficient value that connects the variable using ESM to employee agility moderated by IT proficiency is 2,068 and the p-value is 0.032 (p-value is less than 0.05) so that the value is said to be significant. So it can be interpreted that the hypothesis H6 in this study is supported.

Based on the results of hypothesis testing, it can be seen that the path coefficient that connects the variable using ESM to employee agility mediated by Meta-Knowledge is 4,956 and a significant p-value of 0.000 (p-value smaller than 0.05), it can be interpreted that Meta-Knowledge has an effect on the use of ESM and employee agility.

## **6. Discussion**

There is a positive influence that shows that the use of ESM in ASN in Ngawi Regency has an impact on ASN agility, this result is in line with the findings of Pitafi et al, (2020); Cao et al, (2016); Moqbel *et al.*, 2013; Song *et al.*, 2019) who found that the use of ESM had a positive effect on employee agility. This discovery will be quite meaningful in dealing with organizational conditions that are hit by various existing changes. If employees often use whatsapp/telegram to contact other people/coworkers for work and are able to use new equipment at work, then employee agility. So that the more use of ESM in establishing communication and being used as a bridge in sharing information and knowledge will have a positive impact on the agility of ASN in Ngawi Regency.

Based on the results of testing the second hypothesis in this study, it is known that there is a positive influence on the variable using ESM on Meta-Knowledge. This means that the higher the use of ESM, the Meta-Knowledge will increase. These findings are in line with previous studies, namely: Kanawattanachai and Yoo (2013); Leonardi and Meyer (2015); Wei *et al.*(2020). Wei *et al.* (2020) stated that Meta-Knowledge makes individuals to always take advantage of other people's special knowledge than their own knowledge, so that the information obtained will be wider. Increased Meta-Knowledge is expected to have an impact on increasing ESM usage. If employees often use whatsapp/telegram in their daily work to share files and post things on whatsapp/telegram, other employees can increase Meta-Knowledge. Therefore, employees who have high sensitivity and observation will have high Meta-Knowledge as well. This has resulted in an increase in the frequency of using ESM among employees to exchange or share information and national events/events that affect their Meta-Knowledge and employee agility while they work.

Based on the results of testing the third hypothesis in this study, it is known that there is a positive influence on the Meta-Knowledge variable on employee agility. This is in line with the research of Wei et al, (2020) and Young Choi et al, (2010), which emphasize that with the role of

Meta-Knowledge employees can have a good picture of the talents and skills of other employees, so they can be utilized in completing tasks and profession. It is also effective to find new ways to obtain or utilize resources when the existing resources are not sufficient to do a job so that Employee Agility will increase. In addition, the employee's Meta-Knowledge can be utilized by managers in placing or assigning employee tasks according to the employee's work skills (Young Choi *et al.*, 2010).

Based on the results of hypothesis testing, this study found a positive influence on the effect of using ESM on Meta-Knowledge moderated by Digital Fluency. This shows alignment with previous research, namely Wei *et al.*, (2020) and White (2013). In a study conducted by Wei *et al.*, (2020) suggested that digital fluency positively moderates the relationship between the use of ESM and Meta-knowledge, where the efficiency of using technology is based on the ability of each individual. Research conducted by White (2013) also shows that digital fluency is related to skills, critical thinking and the ability to use special knowledge. If employees can easily and quickly use new equipment at work and various new features of whatsapp/telegram technology then this supports the efficient use of ESM and Meta-knowledge owned by employees. This can indicate that individuals who have higher digital fluency are likely to be able and able to use and utilize ESM well than individuals with low fluency. Therefore, it is hoped that the use of ESM for employees with high digital fluency can reach the maximum point, namely being able to selectively and efficiently use Meta-knowledge to explore information as needed.

Based on the results of hypothesis testing, this study found a positive influence on the effect of using ESM on employee agility moderated by work skills. This finding is in line with the findings of Pitafi *et al.*, (2020); Snell and Dean, (1992); Mullen and Schuerman (1990) where job skills depend on influence within an employee in using, managing and processing technology and information carefully from all sources to increase employee agility. If employees can be skilled to do the job then employees are able to increase the use of ESM and Employee Agility to show themselves as one of the best employees in the office. This can indicate that job skills will support job dexterity in analyzing and interpreting information related to market changes or conditions that impact the organization flexibly.

In the relationship between the use of ESM and Employee Agility moderated by IT proficiency shows significant results, this confirms that IT proficiency has a strong relationship in it. This result is in line with the findings made by Pitafi *et al.*, (2018) and Brue *et al.*, (2002). Organizations that pay attention to HR development and improve employee IT competencies to be able to obtain and utilize effective information so that employees who have IT skills seek the latest information related to trends, methods and even procedures (Pitafi *et al.*, 2018). If employees have valuable knowledge and experience about various software applications in the office and know how/where to get valuable additional information about information systems or IT practices used then employees can easily apply it in the use of ESM to increase employee agility.

Based on the results of testing the seventh hypothesis in this study, it is known that there is a positive effect of the variable using ESM on employee agility which is partially mediated by Meta-Knowledge. This has shown alignment with previous research, namely Wei *et al.*, (2020). The effect of using ESM has an effect on the use of ESM on employee agility mediated by Meta-Knowledge which means that the better the use of ESM, it will increase employee agility directly

or through Meta-Knowledge. If the frequency of use of ESM is increased and employees have high observations, it is easy for employees to get a good picture of the talents and skills of their colleagues. This is effective in increasing the agility of employees to deal with changes that occur.

## 7. Conclusion and Recommendation

After conducting validity tests, reliability tests and hypothesis testing, in this study it can be concluded that the use of ESM affects employee agility, the use of ESM affects Meta-Knowledge, Meta-Knowledge affects employee agility, Digital Fluency moderates the effect of using ESM on Meta-Knowledge, work skills moderating the effect of using ESM on employee agility, IT proficiency moderating the effect of using ESM on employee agility, and Meta-Knowledge mediating the effect of using ESM on employee agility.

Future studies are recommended to develop research on the relationship between ESM use and employee agility by considering other variables in order to obtain more in-depth results. The results of this study cannot be generalized elsewhere so that in future research it is recommended to conduct research on all ASN in other areas, or other sectors such as the non-government sector, private sector or small medium enterprise.

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