



Motivational Impact and Value Perception of Digital Badges towards Applying for Jobs: Evidence from Indonesian Undergraduates

Christian Haposan Pangaribuan*, Rahmat Arif Febriyanto

Department of Management, Sampoerna University, Indonesia. *Email: christian.pangaribuan@sampoernauniversity.ac.id

Received: 26 May 2019

Accepted: 25 July 2019

DOI: <https://doi.org/10.32479/irmm.8172>

ABSTRACT

In the age of competition for employers to acquire talents, especially when digitization takes place in just about everything, companies can implement digital badge to attract talents. The employers face a challenge of talents shortage in which employers hardly fill positions in the company. Despite the big number of graduates who are looking for jobs, this problem still arises because those graduates tend to be more selective in applying for jobs. In this study, the implementation of digital badge is examined through the perspective of self-determination theory, which explains three types of motivation, i.e. a motivation, extrinsic motivation, and intrinsic motivation. The study aims to examine the influence of those three types of motivation on perceived value (PV) of digital badge and intention to send application to a company that implements digital badge. A quantitative approach is employed and final year college students and fresh graduates living in Greater Jakarta Metro Area or Jakarta, Bogor, Depok, Tangerang, and Bekasi are studied. 411 samples are gathered and the study found that the three types of motivations influence PV of digital badge. However, only amotivation and PV of digital badge influence the intention to send application to a company that implements digital badge.

Keywords: Digital Badge, Self-Determination Theory, Amotivation, Extrinsic Motivation, Intrinsic Motivation, Perceived Value

JEL Classifications: J28, L2

1. INTRODUCTION

The evidence that a college degree significantly improves one's employment prospects and earnings potential is overwhelming. Yet, in Indonesia, the number of bachelor degree holders being unemployed increased from 5.34 to 6.22% in 2015 (Ganesha, 2016). This number shows how competitive it is for millennials to find and secure jobs by the time they graduate. In spite of the competition in the labor market, current graduates have their own inclination in choosing careers. This millennial generation is also recognized to hardly be loyal at one profession for a very long time. In 2015, for example, there is 21% of millennials in the United States left their jobs and this figure is 3 times higher than non-millennials who also resigned from work. Besides, in selecting the job opportunities, the millennials select those

that in line with their needs and goals in life (Rigoni and Adkins, 2016).

In today's digital age, the tendency of millennials to be more selective in choosing their job has given employers new challenges in acquiring them. According to ManpowerGroup (2016), 40% of employers worldwide find it difficult to hire employees for filling positions. It is the highest global talent shortage since 2007 and is a 2% increase since 2015. One of the major factors that today's graduates have in choosing employment is how the company would be able to give them recognition (Danna, 2018). Specifically, millennials would prefer recognition that is personalized for them (Greenwood, 2016). In response to the situation, employers need to stay relevant by utilizing digitization in its business practices which includes talent management and acquisition. Bhens et al.

(2016) stated that digital transformation is important for businesses in today's rapidly changing digital landscape. One of the online talent platforms and the digitization that employers can implement is digital badge. According to OpenBadges (2016), digital badges are the indicators or symbolization of skills, accomplishments that can be implemented as a platform to recognize learning and represent accomplishments.

The concept of digital badges is appearing in industries ranging from education all the way to wholesale retail. Indosat Ooredoo, a leading telecommunications provider in Indonesia, is one of the national companies that incorporate digital badge standards as an important means to motivate and reward achievement. As a key to attract talents, motivation is an influential factor that shapes behavior of people and it supports the implementation of a system to be successful (Jung et al., 2010). The motivating element in digital badge derives in part from gamification, a way to introduce game elements into processes to motivate participation and engagement. According to Ruhi (2015), the goal of gamification within a company is to generate desired results by engaging and motivating employees, e.g. improved productivity, organizational transformation and innovation. Lately, gamification has become an important subject of empirical research, and to date, only a few studies have investigated how these gamification elements influence employee's motivation (Seaborn and Fels, 2015; Mekler et al., 2015). In this research, we try to analyze the role of digital badges within the context of working environment through the value perception and how it may influence the intention of fresh graduates to send their applications in.

Today, only a few studies have examined the effects of particular game elements on types of motivation, value perception, and behavioral intention. This research attempts to assess whether the three types of motivation in self-determination theory (SDT) (i.e. extrinsic motivation [EM], amotivation [AM], and intrinsic motivation [IM]) can be used to determine digital badge's value perception and its associated effect on intention to apply. The aim is to enhance the understanding of how gamification element can be used by organizations to drive fresh graduates' motivation and their value perception.

2. LITERATURE REVIEW

2.1. Digital Badge

Digital badge is an online-based achievement record that tracks the interaction between the badge earners and issuers as well as the work that is completed to earn the badge. The digital badge is a function of learning environment that can encourage learning and signaling achievement of earners within an institution or organization or across institutions. It is a tool that can be used to make learnings more doable, portable and powerful. Besides, it can be given to earners for individual skills that can be limitless no matter where the skill is developed. In addition, it can be used as the earners' virtual resume of qualities and competencies for main parties including employers. Furthermore, in relation to recruitment, digital badge can signal earners' skills and achievements to key stakeholders, including potential employers and recruiters in a way that recruiters can find people with digital

badges that meet the job or position requirements (The Mozilla Foundation and Peer 2 Peer University, 2012).

2.2. Gamification

Gamification is referred to the utilization of game elements and mechanics in non-game contexts. It is inspired by games, especially elements that make up games which is adapted for non-entertainment purposes (Seaborn and Fels, 2014). Huotari and Hamari (2016) asserted that gamification is defined as a process that is done by a gamifier, such as an employer, to improve a service with affordances or clues how to use it as well as the purpose of it, to create a gameful experiences which encourage value creation of users, e.g. badges and points.

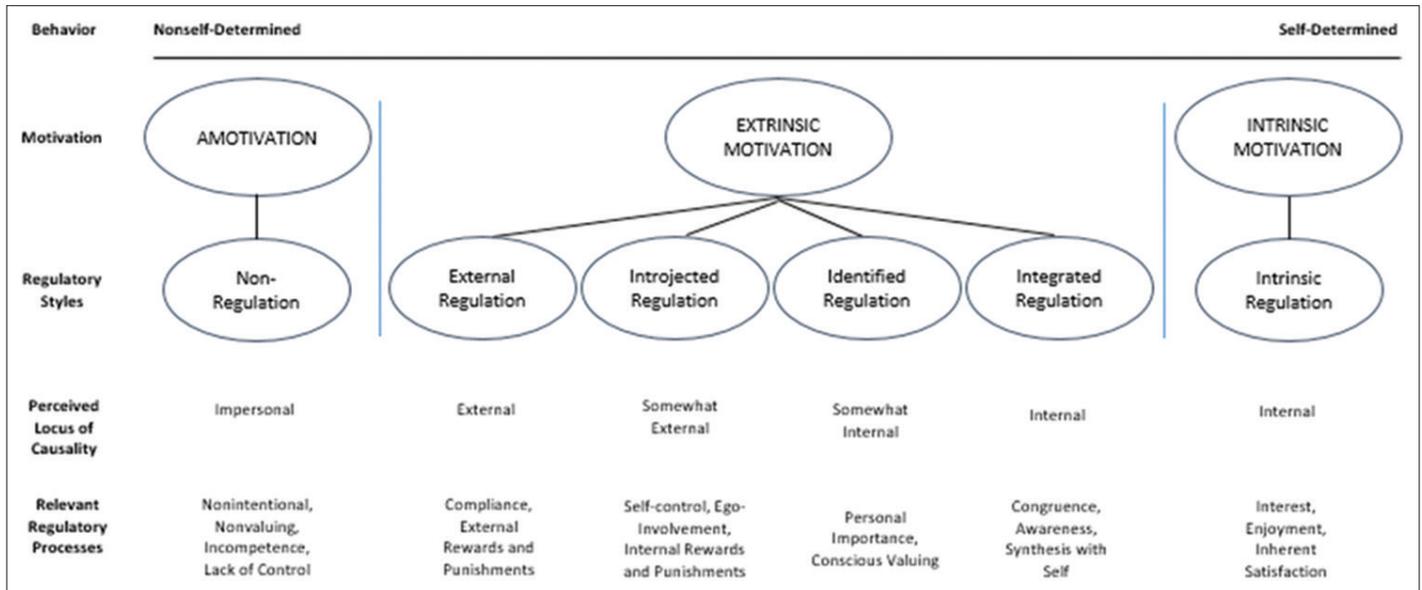
2.3. SDT

SDT is a human motivation theory that studies varieties of occurrences or facts in relation to culture, gender, age, and socioeconomic status (Deci and Ryan, 2015). SDT according to Deci and Ryan (1985) is a broad theory that studies development, traits, and ease in term of social and is based on motivational views that envision numerous events on psychology and other areas, such as workplace. It explains the motivations that encourage people to behave and act depending on different context of their lives. The theory bases its exploration on psychological level that uses the perception, emotions, cognitions, and needs of people (Deci and Ryan, 2015).

The self-determination continuum (Figure 1) which included in SDT is explained under a sub-theory called Organismic Integration Theory. This sub-theory of SDT describes the different form of motivations and the contextual factors in which it can be supporting or challenging the internalization and integration of the regulations (Ryan and Deci, 2000). In the very left of the continuum, there is apathetic motivation or AM which is a situation when people are lacking or have no intention or motivation. The lack of motivation is due to the feeling of incompetency to do something or the feeling of not valuing the outcomes and results that most likely will be gained from the behavior that is performed (Deci and Ryan, 2015). AM is most likely be experienced by people when one or more of the basic needs, i.e. autonomy, competence, and relatedness, is challenged. It is also can be happened when people are not certain about the reasons why they engage in the action (Gagné and Deci, 2005).

The second type of motivation in SDT is EM, which is placed between AM and IM in the continuum. It is the tendency of people to be motivated to engage in behaviours or actions that are forced by families, groups, or societies, especially for those actions that are not enjoyable based on the nature of the people. Likewise, it can also be translated as the tendency of people to avoid activities or behaviours that are considered wrong or problematic by external forces, to avoid punishments, or to get external rewards (Ryan and Deci, 2017). These forces make EM as the drive for people to engage in behaviour because of the important value of the behaviours. In addition, Deci and Ryan (1985) argued, that as EM has variation of categories, including external regulation, introjected regulation, identified regulation, and integrated regulation, the concept of internalization is used to

Figure 1: The self-determination continuum



distinguish them. Internalization itself is referred to the press of making behavioral regulations from external forces become one’s own (Ryan and Deci, 2017).

Finally, IM is defined as the tendency of people to perform an action for satisfaction in the nature (Ryan and Deci, 2000). In this type of motivation, people behave in certain ways because they are encouraged by the enjoyment of the action (Brühlmann, 2013). Besides, in IM, the energy is inherently intrinsic to the organism. It emphasized on the facts that not all behaviors are drive-based and not part of external forces (Deci and Ryan, 1985). Therefore, it can be argued that in IM, people engage in an activity because they are interested to perform that activity and they feel the enjoyment or the fun (Deci and Ryan, 2015).

2.4. Hypothesis Development

AM can influence people to have negative perceived value (PV) towards digital badge. The implementation of digital badge, for instance in educational context, can lead students to have negative views when they only attempted to earn the badge or they did not earn any badges (Reid et al., 2015). Thus, based on the discussion, the hypothesis is:

H1: AM has a negative influence on PV of digital badge.

In the perspective of gamers, digital badge can be perceived as rewards that one self can earn for accomplishing an achievement or perceived as an assignment that requires a completion. These perceptions of digital badge can lead the gamers into a momentum ego boost that makes them feel sense of a pride when earning a badge which illustrates an EM. Meanwhile, the gamers can also have their enjoyment and engagement increased as they earn the badges (Crus et al., 2015), which can be an indication of IM. Accordingly, based on the arguments above, the hypotheses would be:

H2: EM has a positive influence on PV of digital badge.

H3: IM affects the PV of digital badge positively.

In its implementation, digital badge can discourage people to engage in certain behaviour. People can see no meaningful outcomes out of it and feel that their needs are dissatisfied. In the context of workplace, gamification, including digital badge can frustrate and bore the employees which can lead them to put aside the game (Perryer et al., 2016). Based on this discussion, we can hypothesize:

H4: AM has negative influence on intention to send application to a company that implements digital badge.

In contrast, digital badge can encourage application when people are motivated. The implementation of digital badge in an institution, such as in professional learning program drives various intended uses of the digital badge of the participants, such as attaching the digital badge on a resume, linking it to annual performance review, displaying it in social media, posting it on websites, and sending the digital badge link to potential employers (Dyjur and Lindstorm, 2017). Besides, Dyjur and Lindstorm (2017) noted that most of the participants were pleased and happy to earn the digital badge.

Therefore, the hypothesis is:

H5: EM has a positive influence on intention to send application to a company that implements digital badge.

H6: IM influences the intention to send application to a company that implements digital badge positively.

In practice, PV of digital badge can influence the intention to apply to a company. Chen and Fu (2018) argued that PV is substantial in influencing intention. The value that is perceived by the job seekers or candidates can influence whether they intend to apply for the job in a company. Corporate image can build a PV of the candidates in which the candidates feel that the company has similar value to them. As the PV gets bigger and more positive, it increases the intention of the candidates to apply for the job (Wei et al., 2015). Therefore, the authors of this current study hypothesize that:

H7: PV of digital badge has a positive influence on intention to send application to a company that implements digital badge.

3. METHODOLOGY

In current research, the authors utilized quantitative method with primary data. This research was conducted in Jakarta, Indonesia, from April 2018 until June 2018. The authors conducted a survey by utilizing an online questionnaire platform, which consists of set of questions in Likert Scale measurement which was sent to the respondents using social media and social networking. Besides, the respondents for this research were final year college students and fresh graduates from universities, institutes, academy, polytechnic, and other higher education institutions in the cities of Jakarta, Bogor, Depok, Tangerang, and Bekasi (JABODETABEK). The framework model of this current research is illustrated in Figure 2.

3.1. Population and Sample

The population of current study is final year college students and fresh graduates in JABODETABEK, also called the Greater Jakarta area. According to Kemenristekdikti (2017) or Indonesian Ministry of Research, Technology and Higher Education, the number of college students (including universities, institutes, academy, polytechnic, and other higher education institutions) in DKI Jakarta and West Java in 2017, where the Greater Jakarta area is located, was recorded to be 1,933,748 students in total. Besides, the number of college graduates in DKI Jakarta and West Java in 2017 is 320,907 in total. Therefore, the target population for this study is 2,254,655 students. Moreover, the sampling method that the authors used for this research is non-probability sampling, specifically purposive sampling or judgement sampling and the minimum number of samples is 400 based on Slovin's formula.

3.2. Data Gathering and Questionnaire Design

In building the questionnaire, the authors used Qualtrics, an online survey platform. All of the questions are included in one Qualtrics' questionnaire and the link was distributed through online platforms, including social media and social networking platform. In the practice of distribution and collection of the data, the respondents were required to answer the set of questions in the questionnaire based on their preference and situation. In addition, the minimum sample size for this current research is 400 respondents and the authors collected 411. In designing the questionnaire, the authors used and adapted established scales and

questions from previous studies. Questions about AM, EM and IM were adapted from Levin et al. (2012), Vallerand et al. (1992), Guay et al. (2000), and Tremblay et al. (2009). Meanwhile, items related to PV of digital badge were adapted from Schwarz (2016) and Dyjur and Lindstorm (2017). Items related to intention to send application to a company were adapted from Gefen et al. (2003), Collins (2007), and Hickerson et al. (2017).

4. ANALYSIS AND RESULT

In conducting the test, a pretest questionnaire was distributed to and completed by 36 respondents and the data collected was processed by IBM SPSS Statistics software version 24. The result can be seen in Table 1. In conducting the validity test, Kaiser-Mayer-Olkin (KMO) statistic and anti-image correlation were used as the measurement criteria. According to Field (2009), KMO statistic value of 0.5 is barely acceptable or valid; value between 0.5 and 0.7 is considered acceptable; value of 0.7 and 0.8 is good; value between 0.8 and 0.9 or more is great.

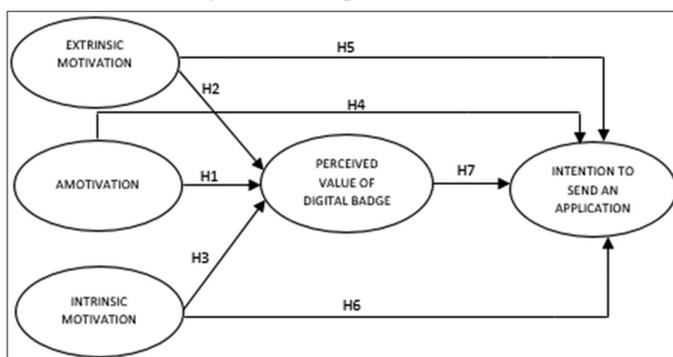
In conducting the reliability test, Cronbach's alpha was used as the measure to determine whether the scale is reliable or not. Field (2009) stated that the scale needs to have at least 0.7 value of Cronbach's α . The value of 0.7-0.8 or more is the range in which the Cronbach's α value is acceptable or reliable. Otherwise, if the value is lower than 0.7, it is considered unreliable. The questionnaire in this current research consists of two dependent variables (PV of Digital Badge and Intention to send application to a company that implements digital badge) and three independent variables (AM, EM, and IM).

In order to portray the respondents profile and interpret the analysis of their demographic data, the mean, mode, multicollinearity test, multiregression test, ANOVA and t-test were used to confirm the variance between the variables.

The gender of the respondents is divided into two categories, male and female (Table 2). Most respondents who participated in completing the questionnaire were 59.1% females (243). The age of the respondents is divided into three groups, 17-21 years old, 22-25 years old, and above 25 years old. Most respondents who participated in completing the questionnaire were in 22-25 years old group with 237 people (57.7%), followed by 17-21 years old group with 156 people (38.00%) and above 25 (4.40%) with 18 people. The respondents' social media usage is divided into five groups, Facebook, Instagram, Twitter, LinkedIn, and others. Most respondents frequently used Instagram (312 people, 75.90%), followed by 54 people expressed to frequently use Twitter (13.10%), Facebook with 17 people (4.10%), other social media with 17 people (4.10%), and LinkedIn with 11 people (2.7%). For the place of residents, most respondents were from Jakarta with 193 people (46.90%), followed by Depok with 73 people (17.80%), Tangerang with 65 people (15.80%), Bogor with 59 people (14.40), and Bekasi with 21 people (5.10%). For the colleges, 213 respondents went to public schools (51.80%) and 198 to private schools (48.20%).

In the next section, the descriptive analysis of variable will be discussed. The mean value for each item on questionnaire for

Figure 2: Conceptual framework



each variable is measured. The mean of each item will be used to determine the average value of the survey results completed by respondents. Moreover, the range of mean value will be from one to six as the researchers used Likert Scale. One indicates Strongly Disagree and six indicates Strongly Agree.

Based on Table 3, the final mean value of PV is 4.55 which indicates that in general the respondents agreed with all the statements. Item PV3 has the highest mean score (4.75), while

item PV5 has the lowest mean score (4.09). In addition, the mode of the responses for all items is 5, showing that the respondents agreed with the value perception. The final mean value of Intention to send application to a company that implements digital badge (INT) is 4.57 which indicates that in general the respondents agreed with all the items, as shown in the mode average of 5. Item INT1 has the highest mean score (4.76) and INT2 has the lowest mean score (4.50). The final mean value of AM is 3.21 which indicates that in general the respondents somewhat disagreed with all the statements, as shown in the mode average of 2. Item AM5 has the highest mean score (4.09), while item AM2 has the lowest (4.69). The final mean value of EM is 4.62, indicating that in general the respondents agreed with all the statements, as shown in the mode average of 5. Item EM1 has the highest mean score (4.79), while item EM6 has the lowest (4.30). The final mean value of IM is 4.37, indicating that in general the respondents somewhat agreed with all the items, as shown in the mode average of 5. Item IM6 has the highest mean score (4.47) and item IM5 has the lowest (4.32).

Multicollinearity test was conducted to identify whether high correlation is presence or not between independent variables. Burns et al. (2017) asserted that to identify multicollinearity, variance inflation factor (VIF) is used and the VIF value must be <10 to indicate that multicollinearity is problem-free. Otherwise, if the VIF is >10, it is suggested to eliminate the variable. Moreover, Field (2009) stated that tolerance value is also evaluated in multicollinearity test; if the tolerance value is <0.1, it indicates a serious problem; if the tolerance value is <0.2, it indicates a potential problem. Therefore, the tolerance value must be >0.2.

Table 1: Validity and reliability tests of the variables

Factor	Item	KMO	Correlation coefficient	Alpha	Note
Perceived value	PV1	0.906	0.920	0.940	Valid
	PV2		0.959		Valid
	PV3		0.851		Valid
	PV4		0.929		Valid
	PV5		0.887		Valid
	PV6		0.917		Valid
Intention to apply	INT1	0.850	0.850	0.903	Valid
	INT2		0.912		Valid
	INT3		0.814		Valid
	INT4		0.831		Valid
	INT5		0.858		Valid
Amotivation	AM1	0.857	0.880	0.909	Valid
	AM2		0.819		Valid
	AM3		0.840		Valid
	AM4		0.906		Valid
	AM5		0.841		Valid
	AM6		0.835		Valid
	AM7		0.869		Valid
Extrinsic motivation	EM1	0.880	0.867	0.946	Valid
	EM2		0.910		Valid
	EM3		0.892		Valid
	EM4		0.834		Valid
	EM5		0.957		Valid
	EM6		0.829		Valid
Intrinsic motivation	IM1	0.855	0.855	0.972	Valid
	IM2		0.797		Valid
	IM3		0.927		Valid
	IM4		0.810		Valid
	IM5		0.800		Valid
	IM6		0.931		Valid

KMO: Kaiser-Mayer-Olkin

Table 2: Demographic profiles

Variable	Description	Frequency	Percent
Gender	Male	168	40.90
	Female	243	59.10
Age	17-21	156	38.00
	22-25	237	57.70
	Above 25	18	4.40
	Facebook	17	4.10
Social media	Instagram	312	75.90
	Twitter	54	13.10
	LinkedIn	11	2.70
	Other	17	4.10
Town of residency	Jakarta	193	46.90
	Bogor	59	14.40
	Depok	73	17.80
	Tangerang	65	15.80
	Bekasi	21	5.10
College status	Public	213	51.80
	Private	198	48.20

Table 3: Mean and mode values of the variables

Factor	Item	Mean score	Final mean value	Mode
Perceived value	PV1	4.58	4.55	5
	PV2	4.73		
	PV3	4.75		
	PV4	4.47		
	PV5	4.09		
	PV6	4.68		
	INT1	4.76		
INT2	4.50			
INT3	4.60			
INT4	4.43			
INT5	4.55			
Amotivation	AM1	2.90	3.21	2
	AM2	2.69		
	AM3	3.08		
	AM4	3.07		
	AM5	4.09		
	AM6	3.44		
	AM7	3.21		
Extrinsic motivation	EM1	4.79	4.62	5
	EM2	4.71		
	EM3	4.67		
	EM4	4.52		
	EM5	4.73		
	EM6	4.30		
Intrinsic motivation	IM1	4.35	4.37	5
	IM2	4.42		
	IM3	4.33		
	IM4	4.33		
	IM5	4.32		
	IM6	4.47		

Table 4 shows all the tolerance values for three independent variables. All the VIF values are smaller than 10. Therefore, from the two results of the tolerance value and VIF values, all the independent variables in Model 1 are free of multicollinearity. For Model 2, all the VIF values are also smaller than 10. Therefore, the two results of the tolerance value and VIF values indicate that multicollinearity is not an issue for all independent variables in Model 2. It also can be suggested that the correlation between independent variables in models 1 and 2 will not engender instability in the following regression analysis.

The linear regression was conducted through SPSS and the model summary of each multiple regression was generated, including the multiple R (R) which is the coefficient of determination. The R illustrates the strength of the overall linear relationship which is the greater R is the better.

Table 4: Multicollinearity test

Model	Tolerance	VIF	Model	Tolerance	VIF
1 (Constant)			2 (Constant)		
EM	0.422	2.367	EM	0.354	2.825
AM	0.746	1.341	AM	0.722	1.385
IM	0.396	2.524	IM	0.298	3.356
			PV	0.279	3.578

a. Dependent Variable: PV

a. Dependent Variable: INT

PV: Perceived value, AM: Amotivation, EM: Extrinsic motivation, IM: Intrinsic motivation, VIF: Variance inflation factor

Table 5: Multiregression test

Model	R	R-square	Adjusted R-square	Standard error of the estimate
1	0.849	0.721	0.718	0.47623
2	0.821	0.674	0.671	0.49939

Table 6: ANOVA

Model	Sum of squares	df	Mean square	F	Significant
1 Regression	237.992	3	79.331	349.785	0.000
Residual	92.307	407	0.227		
Total	330.299	410			
2 Regression	209.283	4	52.321	209.798	0.000
Residual	101.251	406	0.249		
Total	310.534	410			

Table 7: Coefficients

Model	Unstandardized coefficient		Standardized coefficient	t	Significant
	B	Standard error	Beta		
1 (Constant)	1.444	0.185		7.826	0.000
EM	0.338	0.038	0.358	8.868	0.000
AM	-0.088	0.024	-0.110	-3.630	0.000
IM	0.419	0.036	0.482	11.585	0.000
a. Dependent variable: PV					
2 (Constant)	1.466	0.208		7.066	0.000
EM	0.022	0.044	0.024	0.502	0.616
AM	-0.084	0.026	-0.109	-3.269	0.001
IM	0.050	0.044	0.059	1.133	0.258
PV	0.672	0.052	0.693	12.919	0.000

a. Dependent variable: INT

PV: Perceived value, AM: Amotivation, EM: Extrinsic motivation, IM: Intrinsic motivation, VIF: Variance inflation factor

Table 5 shows that the multiple R (R) in Model 1 is 0.849, indicating a strong linear relationship value as it is >0.1. In Model 1, the R2 is 0.721 which illustrates that 72.1% of PV of digital badge (PV) can be described by AM, EM, and IM. The Adjusted R-Square in Model 1 is 0.718 which indicates that 71.8% of the model can be described through those three independent variables.

For Model 2, the multiple R (R) is 0.821, showing a strong linear relationship value as it is >0.1. The value of R2 is 0.674 which illustrates that 67.4% of Intention to send application to a company that implements digital badge (INT) can be described by AM, EM, IM, and PV of digital badge (PV). The Adjusted R Square in Model 2 is 0.671, meaning that 67.1% of the model can be described through those four independent variables.

According to Stine and Foster (2014), F-test evaluates the overall significance of the fitted model. It assesses all the independent variables collectively. Moreover, in this particular test, the F-test will also be compared to F-table and F-statistics probability will be compared to α of 0.05.

In evaluating the significance of Model 1, alpha of 0.05 was used. According to Table 6, the F-test result in Model 1 shows that the sig. value is 0.000 which is less than α of 0.05. Hence, the indication that Model 1 is significant. Moreover, the F-test is 349.785 which is compared to F-table of 3. It shows that the F-test is greater than F-table and it can be concluded that H0 is rejected. In short, Model 1 is significant and at least one β is not 0.

Similarly, for Model 2, alpha of 0.05 was used. The F-test result shows that the sig. value is 0.000 which is less than α of 0.05, explaining that Model 2 is significant. Meanwhile, the F-test is 209.798, and compared to the F-table of 2.61, it shows that the F-test is bigger than F-table. Thus, it can be concluded that H0 is rejected, and Model 2 is significant, while at least one β is not 0.

In Table 7, the P-value of EM of Model 1 is 0.000, lower than the α of 0.05. Referring to the rule of thumb, when the P-value is less than α of 0.05, the variable is significant. Besides, the t-test result of EM is 8.868, bigger than the t-table of 1.962. The rule of thumb asserted that t-test should be greater than t-table for H0 to be rejected. Therefore, it can be implied that EM is significant. It shows that EM has a positive influence on PV of Digital Badge

(PV). A positive relationship between EM and PV of Digital Badge is shown by the beta of 0.338, meaning that in every increase by 1 EM attribute, PV will increase by 0.338. Ryan and Deci (2017) identified EM as a situation when people perform an action to gain separable outcome, including external rewards or they do it to avoid punishment. Crus et al. (2015) found that digital badge can be perceived as rewards to earn or assignment to complete, whilst it can drive a momentum ego boost that makes oneself feels the sense of pride when earning the digital badge that represents an EM. Similarly, Dyjur and Lindstorm (2017) argued that in the context of professional learning development, oneself perceived digital badges to be motivating and encourage them to complete a program. Thus, it supports the argument that EM has a positive influence on PV of digital badge. The P-value of AM is 0.000, lower than the α of 0.05, therefore, the variable is significant. Meanwhile, the t-test of AM is -3.630 , lower than $-t$ -table of -1.962 . The rule of thumb asserted that t-test should be smaller than $-t$ -table for H_0 to be rejected. Therefore, it is significant, which shows that AM has a negative influence on PV of Digital Badge (PV). The beta value of -0.088 illustrates a negative relationship between AM and PV of Digital Badge, meaning that in every AM increase by 1, PV will decrease by 0.088. The t-test result for AM in Model 1 is in line with SDT (Ryan and Deci, 2000) that describes AM or Apathetic Motivation as the situation when one self has lack of intention to perform an action due to the feeling of incompetence and not valuing the potential outcomes of the action. In the context of digital badge, AM can lead oneself to have negative PV of digital badge. Likewise, Reid et al. (2015) found that in an educational context in which digital badge is implemented, AM can lead students to have negative views when they only attempted to earn the badge. In other words, they are amotivated as they have lack willingness to earn the badge. It supports the finding that AM has negative influence on PV. The P-value of IM is also significant, meaning that IM has a positive influence on PV of Digital Badge (PV). The beta coefficient of 0.419 illustrates that in every increase by 1 IM score, PV will increase by 0.419. In relation to this finding, IM is the situation when people engage in a behavior because they feel the enjoyment (Deci and Ryan, 2015). Perryer et al. (2016) argued that digital badge can intrinsically motivates oneself, such as in the context of workplace where digital badge and gamification is implemented, in which the employees are intrinsically motivated to perform their works as in they play a challenging game. Likewise, in the context of gaming itself, gamers can also be intrinsically motivated when digital badges are implemented in the game as they feel the enjoyment out of it. Therefore, the side of the discussion that states IM has a positive influence on PV of digital badge is glorified.

In Model 2, the P-value of EM is 0.616, bigger than the α of 0.05, meaning that the variable is not significant. Besides, the t-test result of EM is 0.502, lower than the t-table of 1.962. Therefore, EM does not have a positive influence on intention to send application to a company that implements digital badge (INT). Dyjur and Lindstorm (2017) argued that implementation of digital badge, such as in an institution and professional learning program can encourage various intended uses. Those intended uses including attaching the badge on a resume and sending it to potential employers. This finding illustrates how digital badge can

extrinsically motivates oneself to intentionally send application to a company. In contrast, Lin (2007) asserted that attitudes better predict intentions than EM. Lin found on the study of effects of extrinsic and IM on employee knowledge sharing intentions, that EM such as expected organizational rewards did not significantly influence employees' intention to knowledge sharing. One of the reasons of this insignificant influence of the EM towards behavioral intentions can be due to the lack popularity of digital badge in present day. Schwarz (2016) stated in a study of digital badge adoption that people are not being aware of digital badges is an expected result as it has not reached critical mass. Schwarz also noted that the trend of developing and issuing digital badges will achieve its popularity and growth stage in approximately the next 5 years. It is supported the finding in this current research that EM does not have a positive influence on intention to send application to a company that implements digital badge. In addition, the result can also be influenced by the profile of the respondents in this current research who are final year student and graduates. They are categorized as millennials, who choose jobs from several job opportunities based on the ability of the job to align with their needs and goals in life (Rigoni and Adkins, 2016). Therefore, the respondents may not solely value organizational rewards due to the considerations of other objectives, such as the belief of them and the company. The P-value of AM is significant at 0.001 because it is lower than the α of 0.05. Since the t-test of AM is -3.269 , AM has a negative influence on intention to send application to a company that implements digital badge (INT). Moreover, the beta for AM is -0.084 , which illustrates a negative relationship between AM and intention to send application to a company that implements digital badge. It explains that in every increase by 1 AM score, INT will decrease by 0.084. Perryer et al. (2016) found that gamification, including digital badge, can bore and frustrate the employees that can drive them to put aside the behavior or the game. The finding of Perryer et al. (2016) aligns with the idea of AM in the context of digital badge in a way that it can discourage people to engage in certain behavior. Therefore, the finding in this research that AM has negative influence on intention to send application to a company that implements digital badge is supported. The P-value of IM is 0.258, bigger than the α of 0.05, hence the insignificant of the variable. Besides, the t-test result of IM is 1.13, lower than the t-table of 1.962. Therefore, IM does not have a positive influence on intention to send application to a company that implements digital badge (INT). In relation to this finding, Dyjur and Lindstorm (2017) found that in the context of professional learning development, people can feel happy and pleased to earn the digital badge that can encourage them to earn more and complete the program. Furthermore, it can lead people to feel the flexibility of the digital badges and valued it as something helpful for them to search a job which explains that IM, such as the feeling of pleasure can encourage to apply for a job. On the other hand, Mitchell et al. (2016) stated that gamification is able to drive initial behavior change and maintenance of that behavior, but it is found that it does not improve IM to perform a behavior. It can be caused by the low IM that oneself has to use the digital badge. Moreover, Haaranen et al. (2014) stated that gamification has been criticized for its tendency to hinder IM by promising extrinsic rewards. Thus, it is supported the argument that IM does not have a positive influence on intention to send application to

a company that implements digital badge. The P-value of PV of Digital Badge (PV) is significant at 0.0000. Therefore, the result shows that PV of Digital Badge has a positive influence on intention to send application to a company that implements digital badge (INT). In the discussion of the effect of PV of behavioral intention, Plummer et al. (2011) found that PV does not influence candidates' intention to send application to a company. In contrast, Chen and Fu (2018) asserted that PV is substantial in influencing intention. For instance, Wei et al. (2015) found on a study of corporate image, that when candidates' PV of the corporate image gets bigger and more positive, the likelihood of those candidates to apply for the job in the company is bigger. It explains that the value perceived by job seekers or candidates can contribute to their intention in applying for the job. Likewise, the finding in this current research explains that in the context of PV of digital badge, the more positive the PV, the bigger the likelihood of the candidates to send application to a company that implements digital badge. Therefore, it strengthens the argument that PV of digital badge has a positive influence on intention to send application to a company that implements digital badge.

5. CONCLUSION AND RECOMMENDATIONS

The findings in this current study show that AM has a significant negative influence on PV of digital badge. On the other hand, EM and IM have a significant positive influence on PV of digital badge. It is noted that IM is the most dominant significant factor influencing PV of digital badge. The study also found that AM has a significant negative influence on intention to send application to a company that implements digital badge. In contrast, extrinsic and IM do not have a significant positive influence on intention to send application to a company that implements digital badge. Furthermore, the analysis in the study also found that candidates or job seekers who are final year college students and fresh graduates who stay in Jakarta have higher EM than those in other areas of JABODETABEK. Besides, final year students and fresh graduates based in JABODETABEK who went to private colleges have higher EM than those to public universities. In addition, PV of digital badge is the most dominant significant factor influencing the talents' intention to apply to a company where digital badge is implemented.

5.1. Theoretical Implications

This current research specifically contributes to the study of SDT and digital badging in which AM, EM, and IM significantly influence PV of digital badge. Moreover, this research found that in terms of intention to send application to a company that implements digital badge, AM has a negative significant influence on it, which also strengthens the arguments in a prior study that AM can discourage people to engage in certain behavior including the intention to apply to a company (Perryer et al., 2016). Meanwhile, the research also found that PV of digital badge has a positive significant influence on intention to apply to a company that implements digital badge. It aligns with prior studies which argued that PV is a substantial factor that influences intention of oneself (Chen and Fu, 2018; Wei et al., 2015). However, current

research found that two types of motivations in SDT, extrinsic and IM, are not significant factors influencing intention to send application to a company that implements digital badge. Both of them are proven to have no positive influence on the intention of the talents to apply to the company. This finding is against the discovery in prior study of Dyjur and Lindstorm (2017) that argued extrinsic and IM can lead to behavioral intentions such as sending application to a company. The finding supports the study of Lin (2007), Schwarz (2016), Mitchell et al. (2016), and Haaranen et al. (2014). Furthermore, these findings can be caused by the popularity of digital badge that is lacking in present day, especially in Indonesian workforce and talent market.

5.2. Managerial Implications

Since the study found that AM has negative influence on PV of digital badge and extrinsic and IM has positive influence on PV of digital badge, employers are suggested to consistently communicate the significance of digital badge for the talents and employees, e.g. by emphasizing on benefits, from within or outside the company, that can be gained by earning the badge. In addition, ensuring an enjoyable experience of the digital badge implementation is also important by customizing the badge to make it more personal and not frustrating. Employers are suggested to ensure the interests of the talents by more aggressively introduce the digital badge and the perks of earning it to the talents. It is even more important knowing that digital badge is not in its critical mass yet or still lack in popularity. Moreover, these efforts can be fruitful to make the employers attractive as one of the first movers in digital badge implementations in Indonesia. It is supported by the prediction that digital badge will achieve its popularity and growth stage in the next 5 years (Schwarz, 2016). Moreover, the study demonstrates that final year college students and fresh graduates who live in Jakarta have higher EM. Likewise, those from private colleges also have higher EM. Therefore, the employers can introduce digital badge as a reward system that can be earned by employees of the company to final year college students and fresh graduates who live in Jakarta and those who come from private colleges as they are more extrinsically motivated. It is also necessary to communicate that digital badge can also lead the earners to other benefits such as project opportunities or even career promotions.

5.3. Limitations and Future Research

This study used non-probability sampling technique, especially purposive sampling that is based on judgement of the researchers in selecting the samples. This technique is subjective in which if the selected units are different, the results and any generalizations in the study could be different. Furthermore, there is a possibility of bias in the research as the researcher employed a survey to collect the data from the respondents in which the respondents may not feel encouraged to provide accurate and true answers. Furthermore, close-ended questions in the questionnaire may have lower validity rate than other type of questions as the respondents have limited participation in providing their own answers. Future studies are suggested to expand the scope of the study to get new and extensive findings. For instance, expanding the scope in other cities may offer different insights. Besides, including underclassmen in college for the research as samples can also contribute to more

conclusive generalizations. Moreover, future research is suggested to employ probability sampling, such as random selection method to minimize the subjectivity of unit selection for the study. Experimental research can also be conducted for future study to derive better results as it can be verified and checked.

REFERENCES

- Bhens, S., Lau, L., Sarazzin, H. (2016), The New Tech Talent you Need to Succeed in Digital. Available from: <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/the-new-tech-talent-you-need-to-succeed-in-digital>.
- Brühlmann, F. (2013), Gamification from the Perspective of Self-Determination Theory and Flow (Bachelor Thesis). University of Basel, Switzerland.
- Burns, A.C., Veeck, A.F., Bush, R.F. (2017), Marketing Research. 8th ed. Boston, MA: Pearson.
- Chen, J.H., Fu, J. (2018). On the effects of perceived value in the mobile moment. *Electronic Commerce Research and Applications*, 27, 118-128.
- Collins, C.J., (2007), The interactive effects of recruitment practices and product awareness on job seekers employer knowledge and application behaviors. *Journal of Applied Psychology*, 92(1), 180-190.
- Cruz, C., Hanus, M.D., Fox, J. (2015), The need to achieve: Players perceptions and uses of extrinsic meta-game reward systems for video game consoles. *Computers in Human Behavior*, 71(2015), 516-524.
- Danna, R. (2018), Recognition in the Workplace: It's Not What You Think It Is. Available from: <https://www.forbes.com/sites/forbescommunicationscouncil/2018/02/28/recognition-in-the-workplace-its-not-what-you-think-it-is/#c308cd3da55e>.
- Deci, E.L., Ryan, R.M. (1985), *Intrinsic Motivation and Self-determination in Human Behavior*. New York: Springer Science Business Media.
- Deci, E.L., Ryan, R.M. (2015), *Self-Determination Theory*. International Encyclopedia of the Social and Behavioral Sciences. New York: Elsevier Ltd.
- Dyjur, P., Lindstrom, G. (2017), Perceptions and uses of digital badges for professional learning development in higher education. *TechTrends*, 61(4), 386-392.
- Field, A. (2009), *Discovering Statistics Using SPSS 4th ed.* London: SAGE Publications.
- Gagné, M., Deci, E.L. (2005), Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- Ganesha, A. (2016). It's Getting Harder to Find a Job, Graduates Say. Available from: <http://www.jakartaglobe.id/labor-business/getting-harder-find-job-graduates-say>.
- Gefen, D., Karahanna, E., Straub, D.W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51-90.
- Greenwood, A. (2016), Why Millennials Want Recognition more than Freebies Work Stars. Available from: <http://www.workstars.com/recognition-and-engagement-blog/2016/10/20/millennials-want-recognition-freebies>.
- Guay, F., Vallerand, R.J., Blanchard, C. (2000), On the assessment of situational intrinsic and extrinsic motivation: The situational motivation scale (SIMS). *Motivation and Emotion*, 24(3), 175-213.
- Haaranen, L., Ihantola, P., Hakulinen, L., Korhonen, A. (2014), How (not) to Introduce Badges to Online Exercises. Proceedings of the 45th ACM Technical Symposium on Computer Science Education SIGCSE 14.
- Hickerson, S.C., Fleming, M.L., Sawant, R.V., Ordonez, N.D., Sansgiry, S.S. (2017), Predicting pharmacy students' intention to apply for a residency: A systematic theory of planned behavior approach. *Currents in Pharmacy Teaching and Learning*, 9(1), 12-19.
- Huotari, K., Hamari, J. (2016), A definition for gamification: Anchoring gamification in the service marketing literature. *Electronic Markets*, 27(1), 21-31.
- Jung, J., Schneider, C., Valacich, J. (2010), Enhancing the motivational affordance of information systems: The effects of real-time performance feedback and goal setting in group collaboration environments. *Management Science*, 56(4), 724-742.
- Kemenristekdikti. (2017), *Statistik Pendidikan Tinggi*. Available from: <http://www.kopertis3.or.id/v5/wp-content/uploads/Buku-Statistik-Pendidikan-Tinggi-2017.pdf>.
- Levin, M.A., Hansen, J.M., Laverie, D.A. (2012), Toward understanding new sales employees' participation in marketing-related technology: Motivation, voluntariness, and past performance. *Journal of Personal Selling and Sales Management*, 32(3), 379-393.
- Lin, H. (2007), Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science*, 33(2), 135-149.
- ManpowerGroup. (2016), 2016-2017 Talent Shortage Survey. Available from: <http://www.manpowergroup.com/talent-shortage-2016>.
- Mekler, E.D., Brühlmann, F., Tuch, A.N., Opwis, K. (2015), Towards understanding the effects of individual gamification elements on intrinsic motivation and performance. *Computers in Human Behavior*, 71(2015), 525-534.
- Mitchell, R., Schuster, L., Drennan, J. (2016), Understanding how gamification influences behaviour in social marketing. *Australasian Marketing Journal (AMJ)*, 25(1), 12-19.
- Open Badges. (2016). About Open Badges. Available from: <https://www.openbadges.org/about>.
- Perryer, C., Celestine, N.A., Scott-Ladd, B., Leighton, C. (2016), Enhancing workplace motivation through gamification: Transferrable lessons from pedagogy. *The International Journal of Management Education*, 14(3), 327-335.
- Plummer, M., Hiltz, S., Plotnick, L. (2011), Predicting Intentions to Apply for Jobs using Social Networking Sites: An Exploratory Study. HICSS '11 Proceedings of the 2011 44th Hawaii International Conference on System Sciences. p1-10.
- Reid, A.J., Paster, D., Abramovich, S. (2015), Digital badges in undergraduate composition courses: Effects on intrinsic motivation. *Journal of Computers in Education*, 2(4), 377-398.
- Rigoni, B., Adkins, A. (2016), What Millennials Want from a New Job. Available from: <https://www.hbr.org/2016/05/what-millennials-want-from-a-new-job>.
- Ruhi, U. (2015), Level up your strategy: Towards a descriptive framework for meaningful enterprise gamification. *Technology Innovation Management Review*, 5(8), 5-16.
- Ryan, R.M., Deci, E.L. (2000), Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Ryan, R.M., Deci, E.L. (2017), *Self-determination Theory Basic Psychological Needs in Motivation, Development, and Wellness*. New York: Guilford Press.
- Schwarz, S.J. (2016), *Digital Badge Adoption: Earner's Perceived Educational Value* (Master's Thesis, Iowa State University, 2016). Ames. Available from: <http://www.lib.dr.iastate.edu/etd/15076>.
- Seaborn, K., Fels, D.I. (2015), Gamification in theory and action: A survey. *International Journal of Human-Computer Studies*, 74(2015), 14-31.
- Stine, R.A., Foster, D.P. (2014), *Statistics for Business: Decision Making and Analysis*. 2nd ed. Harlow, Essex: Pearson.
- The Mozilla Foundation, and Peer 2 Peer University. (2012), *Open Badges for Lifelong Learning: Exploring an Open Badge Ecosystem to Support Skill Development and Lifelong Learning for Real Results Such as Jobs and Advancement*. Working document. Available from:

https://www.wiki.mozilla.org/images/5/59/OpenBadges-Working-Paper_012312.pdf.

Tremblay, M.A., Blanchard, C.M., Taylor, S., Pelletier, L.G., Villeneuve, M. (2009), Work extrinsic and intrinsic motivation scale: Its value for organizational psychology research. *Canadian Journal of Behavioural Science*, 41(4), 213-226.

Vallerand, R.J., Pelletier, L.G., Blais, M.R., Briere, N.M., Senecal, C.,

Vallieres, E.F. (1992), The academic motivation scale: A measure of intrinsic, extrinsic, and a motivation in education. *Educational and Psychological Measurement*, 52(4), 1003-1017.

Wei, Y., Chang, C., Lin, L., Liang, S. (2015), A fit perspective approach in linking corporate image and intention-to-apply. *Journal of Business Research*, 69(6), 2220-2225.