Students Self Efficacy: Do Perceived Information Technology Competencies And Work Readiness Matter?

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ABSTRACT

Management education is currently facing new challenges that arise as a result of globalization, technological developments and weak ethics. This study aims to map the information technological competency and work readiness of accounting students and their influence on student self-efficacy in the digital era. This research used a quantitative approach. The respondents of this research were 106 students of the Accounting Study Program at Faculty of Economics Yogyakarta State. Data was collected using a semi open ended questionnaire which was circulated to students online. The data obtained were analyzed using qualitative descriptive analysis techniques through stages of reduction, presentation, and drawing conclusions. Path analysis is also used to analyze the direct and indirect effect of accounting students' information technological competency variables on work readiness and self-efficacy. Based on the data analysis, it was concluded that the highest Work Readiness was owned by students at the age of 20 years. There were no significant differences between the Information technological competency, Work Readiness, and self-efficacy levels. Based on the path analysis test, it is concluded that there is a direct effect of Information technological competency on Self Efficacy (0.021), however, the effect on self-efficacy is not mediated by Work Readiness.

Keywords: Information technological competency, work readiness, self-efficacy

1. INTRODUCTION

After completion of undergraduate studies, the transition from being students to practicing employees can be challenging and problematic issues for fresh graduates. Alas, Anshari, Sabtu, and Yunus (2016) state that the theory of planned behaviour attempts to explain influence behaviour. It was proposed by Polish-born US psychologist Leek Ajzen as a way of understanding how people change their behaviour. True to its name, a premise of the theory of planned behaviour is that behaviour can be deliberate and planned. Many models of behaviour share the assumption that behaviour results from a reasoned process, where individuals consider their options, evaluate the consequences and make decisions about how to act. The core of the theory of plan behaviour - general attitudes, beliefs and preferences related to a behaviour predict intentions, and intentions predict behavior (Barber, 2011).
According to the theory of planned behaviour, human action is driven by three kinds of considerations: (1) behavioural beliefs about the likely consequences of certain behaviour; (2) normative beliefs about the normative expectations of others; and (3) control beliefs about the presence of factors which might facilitate or impede performance of the behavior (Alas et al., 2016).

Kellermann and Sagmeister (2000) state that in the world of work unemployment continues to increase every year, especially unemployment from college graduates. Therefore, undergraduate candidates are required to be more creative, innovative, have competence, job skills, and good personality. This is because, the available vacancies are actually the main obstacle for a scholar to get a job. Santrock (2003) and Wall (2007) agree that job readiness greatly influences a scholar to get a job.

Based on the results of data analysis, Goh (2014) concluded that the priority order of the top skills desired by company managers for new employees is: (1) Infocomm Technology Skills (for example, business intelligence / CRM tools, software for automation), (2) Business skills (e.g. analytical skills, strategic planning, negotiation, investor relations), (3) Technical Skills (e.g. financial reporting, accounting & finance), and (4) Management and people skills (e.g. leadership / people management, communication, organizational skills, decision making).

In line with the research of Goh (2014), Sitohang and Santosa (2019) proved a significant influence between information technology capabilities on Work Readiness. Furthermore, Indriyani (2017) provides significant evidence of the effect of the ability to use information systems on Work Readiness in accounting students.

Accounting education is currently facing new challenges that arise as a result of globalization, technological developments and weak ethics. These three factors are cited as the cause of instability and an era of disruption that demands the emergence of new innovations in the world of education. Pan & Seow (2016) proposed four areas of knowledge that accounting graduates must master which include internal control, information technology control and auditing, data modeling, tagging and management, and data analysis.

Figure 1. Accounting Information Systems Model Curricula

Figure 1. Accounting Information System Model
Service innovation is better demanded so that universities are able to produce work-ready graduates who are able to face the era of disruption and strengthen social contracts that are weakened due to weak ethics in business practices. Job readiness is the possession of skills and attributes that ensure employability and enable success in the workplace (Cabellero and Walker, 2010). Meanwhile, one of the major tasks of educational institutions is to meet these demands and ensure that their graduates are able to meet the demands of the times in the era of disruption and the next era (Raghavan & Thomas, 2014).

Mor, D., Laks, H., & Hershkovitz, A. (2016) cited that information and communication technology (ICT) is part of the everyday life in the 21st century, and the rapid development of ICT requires a completely new set of skills related to technological literacy. They reported that many recent studies have explored the changes in employment demands as a result of developing technologies and have specifically mentioned the high demand for skilled workers. As Lin (2000) suggests, “computer literacy” might no longer be the right term to be used to describe the current profile of employees in today’s job market, but rather fluency with in-formation technology. This notion is also related to the concept of computer self-efficacy.

Computer self-efficacy is defined as “an individual’s perceptions of his or her ability to use com-puters in the accomplishment of a task rather than reflecting simple component skills” (Compeau & Higgins, 1995). Many previous studies had examined individual differences in computer self-efficacy, suggesting various explaining measures, like attitudes towards computer usage and pre-vious experience with computers.

Work readiness is an important factor, especially after students complete their research at tertiary institutions (Gunawan et al., 2020). Career self-efficacy theory is used to understand, assess, and design interventions that focus on career behavior. Reddan (2015) cites that almost all individuals have a behavior where they are less confident about their abilities. In many cases, these deemed inadequate areas can limit the range of career options or successes by which the desired career options are achieved.

Salleh, Verma, Nankervis, and Burgess (2017) studied career readiness of undergraduates in Malaysia that was measured by the Career Factors Inventory (CFI), which consists of two dimensions of information, namely the need for career information and the need for self-knowledge and two personal-emotional dimensions: career choice anxiety and generalised indecisiveness. The majority of respondents reported having a high level of career readiness. This research also found that the majority of Malaysian undergraduates reported having a high need for career information and for self-knowledge. Male undergraduates were more career-ready than female students. Findings on the career-readiness levels could possibly facilitate the government and educators in developing relevant programs and beneficial co-curriculum in universities. Co-curricular contents should be enhanced by integrating career-readiness positive attributes that would benefit them directly after graduation.

Psychologically, someone's readiness for something will increase that person's confidence. Career readiness refers to the preparedness of an individual in looking for a job and moving towards establishing the career path that they have chosen (Salleh et al., 2017). The more prepared a person is to face something: the more confident he is in facing the challenges at hand. In the context of Work Readiness, Makki, Salleh, Memon and Harun (2015) prove a significant relationship between Work Readiness and self-efficacy. Furthermore, Makki, Javaid, and Bano (2016) also provide evidence of a relationship between work readiness and self-efficacy. From the two previous research findings, it is clear that Work Readiness has a significant relationship with self-efficacy.
Mansor and Tan defined career-readiness as the preparedness of an individual in looking for a job and moving towards establishing the career path that they have chosen (Salleh et al., 2017). It implies that individuals are firm with their choice of career; and know very well what to expect when entering the workforce and do what is necessary in order to adapt to their chosen career. Conley stated that career-readiness is “readiness for courses specific to an occupational area or certificate” (Salleh et al., 2017). The Career Readiness Partner Council explained that a “career-ready” person is one who successfully navigates themselves through pathways that link both education and employment, towards achieving a fulfilling, financially-secure and successful career; and mastering key academic, technical and workplace knowledge (Salleh et al., 2017). According to the Ministry of Higher Education Malaysia, Malaysians undergraduates were not “career-ready” as they were unable to meet the demands of the market yet (Salleh et al., 2017). As such, they were not wholly prepared when they chose careers and therefore a mismatch of skills is likely to occur. Conley explained that career-readiness is concerned with knowledge, skills and learning strategies necessary to begin studies leading to chosen career pathways (Salleh et al., 2017).

Based on the above discussion, this study proposes the following theoretical relation model and hypothesis:

![Diagram of theoretical relation among variables]

**Figure 2. Theoretical Relation among Variables**

- **H1**: Perceived Information Technological Competency significantly affects Work Readiness
- **H2**: Perceived Work Readiness significantly affects Self-Efficacy
- **H3**: There is a significant indirect influence of Perceived Information Technological Competency on Self-Efficacy through Work Readiness.

### 2. METHODS

The respondents of this research were 106 students of the Accounting Study Program at Faculty of Economics Yogyakarta State. Data were collected using a semi open ended questionnaire which was circulated to students online. Information technological competency is measured by adopting an instrument developed by Chen et al. (2009), Pan & Seow (2016), and Dalahmeh (2017). This instrument includes three aspects, namely application software at the expert level, IT management, and operating system software. The Work Readiness instrument is translated into three key indicators which include personal qualities and people, professional knowledge, and technology knowledge. Meanwhile, the self-efficacy instrument from Reddan (2015) is measured using indicators of awareness of strengths and weaknesses, specific knowledge, planning, and problem solving. Measurement of respondents' answers to the questionnaire used a four-point Likert scale of strongly disagree / unfully mastered - strongly agree / fully mastered.
Path analysis is used to analyze the direct and indirect influence of accounting students’ information technological competency variables on work readiness and self-efficacy. The path analysis statistical model in this study is as follows.

\[ Y = a_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon_2 \]
\[ X_2 = \beta_0 + \beta_3 X_1 + \epsilon_1 \]
\[ Y = \beta_0 + \beta_4 X_1 + \epsilon_1 \]

Description:
- \( Y \): Self Efficacy
- \( X_1 \): Information Technology Competency
- \( X_2 \): Work Readiness

The significance test of the indirect effect of message quality on the level of preference was used the Sobel Test (Preacher and Hayes, 2004: 719). In more detail, here is the formula:

\[ a : \text{Direct effect coefficient of TC on WR} \]
\[ b : \text{Direct effect coefficient of WR on SE} \]
\[ Sa, Sb : \text{Standardized error of coefficient of a and b} \]

3. RESULTS

The data collection process was carried out by distributing questionnaires online using Google form. Direct distribution of questionnaires through face-to-face is not possible given the campus is closed and lecture activities are conducted online during the COVID-19 pandemic. In this condition, the study received a response from as many as 106 students or a response rate of 29.86%.

Respondents of this study consisted of 106 students with the majority of respondents (70.8%) being female students with the largest age range being 21 years (48.1%). A total of 69.8% of respondents are students of S1 Accounting study program while the remaining 30.2% are students of D3 Accounting. Respondents came from 3 classes, namely 2016-2018, but the majority (48.1%) were students of class 2017.

Following are the results of hypothesis testing using simple linear regression analysis between the variables ITC - WR and WR - SE.

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Unstd. Coeff. (B)</th>
<th>Std. Coeff.</th>
<th>t</th>
<th>Sig.</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ITC - WR</td>
<td>(Constant)</td>
<td>48.658</td>
<td>7.189</td>
<td>6.768</td>
<td>0.000</td>
<td>0.196</td>
</tr>
<tr>
<td></td>
<td>TC</td>
<td>0.783</td>
<td>0.152</td>
<td>0.451</td>
<td>5.160</td>
<td>0.000</td>
</tr>
<tr>
<td>2. WR - SE</td>
<td>(Constant)</td>
<td>4.072</td>
<td>1.302</td>
<td>3.127</td>
<td>0.002</td>
<td>0.579</td>
</tr>
<tr>
<td></td>
<td>WR</td>
<td>0.182</td>
<td>0.015</td>
<td>0.763</td>
<td>12.050</td>
<td>0.000</td>
</tr>
</tbody>
</table>

ITC: Information Technological Competency
WR: work readiness  
SE: self-efficacy

Based on the table above, a regression equation model can be drawn up as follows:
Model 1: WR = 48.658 + 0.783ITC  
Model 2: SE = 4.072 + 0.182WR

The regression equation for model 1 above shows that ITC has a positive effect on WR. Based on the table above, it can be seen that the t-count value of 6.768 with an empirical significance value of 0.000 less than 0.05 indicates that ITC has a significant effect on WR. Thus the hypothesis which states "There is an influence of Information technological competency on Work Readiness" is accepted. Meanwhile, the Adjusted R Square value of 0.196 indicates that the contribution of TC in influencing changes in WR is 19.6%, while the remaining 80.4% is influenced by variables other than TC.

The regression equation for model 2 above shows that WR has a positive effect on SE. Based on the table above, it can be seen that the t-count value is 3.127 with an empirical significance value of 0.000, smaller than 0.05, indicating that WR has a significant effect on SE. Thus the hypothesis which states "There is an effect of Work Readiness on Self Efficacy" is accepted. Meanwhile, the Adjusted R Square value of 0.579 indicates that the contribution of WR in influencing changes in SE is 57.9%, while the remaining 42.1% is influenced by variables other than WR.

### Table 2.
Regression TC and WR on SE

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std. Coeff.</th>
<th>Beta</th>
<th>t / F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>4.289</td>
<td>1.499</td>
<td></td>
<td>2.861</td>
<td>0.005</td>
</tr>
<tr>
<td>ITC</td>
<td>-0.009</td>
<td>0.030</td>
<td>-0.021</td>
<td>-0.296</td>
<td>0.768</td>
</tr>
<tr>
<td>WR</td>
<td>0.185</td>
<td>0.017</td>
<td>0.773</td>
<td>10.838</td>
<td>0.000</td>
</tr>
<tr>
<td>Anova</td>
<td></td>
<td></td>
<td></td>
<td>72.004</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Dependent Variable: Self-efficacy

Based on the table above, it can be seen that the constant value is 4.289 and the regression coefficient is 0.783 so that the regression equation can be drawn up as follows:  
SE = 4.289 - 0.009TC + 0.185WR

The regression equation above shows that TC has a negative effect on SE while WR has a positive effect on SE. Based on the table above, it can be seen that the t-count value for TC is -0.296 with an empirical significance value of 0.768, greater than 0.05, indicating that TC has no significant effect on SE when tested simultaneously. On the other hand, the t-count value for WR was 10.838 with an empirical significance value of 0.000, less than 0.05, indicating that WR had a significant effect on SE. Meanwhile, the value of Adjusted R Square is 0.575 with an Fcount of 72.004 with a significance of 0.000, indicating that simultaneously TC and WR have a significant effect on SE. 57.9%, the effect of these two variables together in influencing SE is 57.7%, while the remaining 42.3% is influenced by variables other than WR.

Meanwhile, to see the indirect effect of the TC variable on WR, a summary of the following test results was made.
Table 3.
Path Analysis Summary

<table>
<thead>
<tr>
<th>Path</th>
<th>Direct effect</th>
<th>Indirect effect</th>
<th>Sig</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITC ➔ WR</td>
<td>0.451</td>
<td>-</td>
<td>0.000</td>
<td>H1 Accepted</td>
</tr>
<tr>
<td>WR ➔ SE</td>
<td>0.763</td>
<td>-</td>
<td>0.000</td>
<td>H2 Accepted</td>
</tr>
<tr>
<td>ITC ➔ WR ➔ SE</td>
<td>-</td>
<td>-0.017</td>
<td>0.940*</td>
<td>H3 Rejected</td>
</tr>
</tbody>
</table>

* Sobel Test calculation

\[
Sab = \sqrt{(0.763^2 \times 0.03^2) + (0.451^2 \times 0.017^2) + (0.03^2 \times 0.017^2)}
\]

\[
Sab = 0.022
\]

Then,

\[
t = \frac{ab}{Sab}
\]

\[
t = \frac{(-0.009 \times 0.185)}{0.022}
\]

\[
t = -0.076\text{ (sig. = 0.940)}
\]

From the results of the calculation of the sobel test above, the t value is -0.076, because the t value obtained is 0.063 < 1.96 with an empirical significance level of 0.940 greater than 0.05, this proves that TC has an indirect and insignificant effect on SE, it also proves that WR does not mediate the effect of ITC on SE.

4. DISCUSSION

The results of this study prove that there is an effect of Information technological competency on Work Readiness with an Adjusted R Square value of 0.196 indicating that the contribution of TC in influencing changes in WR is 19.6%, while the remaining 80.4% is influenced by variables other than TC. The results of this study are in line with and support the findings of research on the direct effect of TC on WR conducted by (Anshari, 2010), Sitohang and Santosa (2019), Indriyani (2017).

Furthermore, this study concluded that there was an effect of Work Readiness on Self Efficacy with an Adjusted R Square value of 0.579 indicating that the contribution of WR in influencing changes in SE was 57.9%, while the remaining 42.1% was influenced by variables other than WR. The results of hypothesis testing about the effect of WR on SE are in line with the results of previous research from Makki, Salleh, Memon and Harun (2015) and confirm the results of research from Makki, Javaid, and Bano (2016).

The results showed that TC had no significant effect on SE when tested simultaneously. Conversely, WR has a significant effect on SE. Meanwhile, the value of Adjusted R Square is 0.575 with an Fcount of 72.004 with a significance of 0.000, indicating that simultaneously TC and WR have a significant effect on SE. The results of this study proved that TC had an indirect and insignificant effect on SE, and at the same time proved that WR did not mediate the effect of TC on SE. The results of the study which found no direct and significant effect on TC through WR on SE contradicts the findings of previous research conducted by Sitohang and Santosa (2019) and Indriyani (2017), Makki, Javaid, and Bano (2016) and Makki, Salleh, Memon and Harun (2015).
The path model of all the relationships between the variables of this study can be described as follows.

![Figure 3. Empirical Relation among Variables]

**Calculation of error:**

The data analysis used in this research is: (1) descriptive analysis; (2) regression analysis; and (3) path analysis. Based on the results of data analysis, this study concludes: (1) there is a significant effect of leadership style ($X_1$) on the Work Readiness of students ormawa ($Y$); (2) there is a significant effect of managerial ability ($X_2$) on the work readiness of students ormawa ($Y$); (3) there is a significant effect of self-efficacy ($X_3$) on the Work Readiness of students ormawa ($Y$); (4) there is a significant effect of learning achievement ($X_4$) on student ormawa Work Readiness ($Y$); and (5) there is a significant effect of leadership style ($X_1$), managerial ability ($X_2$), self-efficacy ($X_3$), and learning achievement ($X_4$) on the Work Readiness of Ormawa students ($Y$) (Gunawan, et al, 2020).

Based on the analysis of the mean difference in research variables based on gender, there was no significant difference between male and female students for all research variables indicated by the variable TC ($t = 0.840$, sig. = 0.403), WR ($t = 0.619$, sig. = 0.537), and SE ($t = 1.211$, sig. = 0.229). In line with the results of the TC difference test, this study also found that there was no significant difference in the mean of WR variable based on class (A, B, U) which were respectively indicated by the variable TC ($F = 2.826$, sig. = 0.064), WR ($F = 1.804$, sig. = 0.170), and SE ($F = 2.301$, sig. = 0.105). Likewise, the class-based mean difference test also did not find any significant differences between the 2016, 2017, and 2018 classes indicated by the variable TC ($F = 0.762$, sig. = 0.469), WR ($F = 2.226$, sig. = 0.113), and SE ($F = 1.942$, sig. = 0.149). Finally, based on the age-based mean difference test, there was no significant difference between batches of 20, 21, and 22 years in the TC ($F = 0.716$, sig. = 0.545) and SE ($F = 2.140$, sig. = 0.100) variables but there was a difference in WR between people based on a score of $F = 4.51$ with a significance of 0.004 less than 0.05. The Posthoc test found that student WRs aged 20 years did better than WR students aged 21 and 22. It infers that IT curriculums are merely offered in the beginning semester but not at the end semester also.

**5. CONCLUSION AND RECOMMENDATION**

Based on data analysis, this study concludes that there is a direct effect of Information technological competency and Work readiness on Self Efficacy. However, the results of this study found that there was no significant effect of Information technological competency on Self Efficacy, so it can also be concluded that the Work Readiness variable does not mediate the effect of Work Information technological competency on Self Efficacy.

Based on the analysis of the mean difference based on gender, year intake, class, age, it is found that there was no significant mean difference between gender, year intake, class,
and age on Information technological competency and Self Efficacy. Yet there was a difference in Work Readiness between students on the basis of student’s age. The Posthoc test found that students’ Work Readiness for the younger are the better. It infers that IT curriculums are merely offered in the beginning semester but not at the end semester also. The results of this study have an implication that the ability in student information technology must be pursued in order to keep up with the very rapid developments in technology so that students can have better job readiness. In addition, more work readiness from students will increase the self-efficacy of students in interacting with the environment in the present and in the future.

Based on the results of the analysis and conclusions that have been presented, the suggestions that can be given in this study are as follows:

1. Future research is expected to add new variables and further explore the factors that affect Self Efficacy.
2. Further research can increase the number of respondents or make the classification of respondents proportional between groups at both levels and semesters so that it can represent the population as well as increase the external validity of the study.
3. To avoid bias because the response cannot be controlled properly because of the seriousness and truthfulness of the filler respondents, in addition to the distribution model directly in class and being supervised, data collection methods can also be used that can validate questionnaire data, for example interviews.
4. Tertiary Education Institutions must always strive to update the curriculum periodically and provide practical facilities based on the latest information technology so that student work readiness is better.

6. REFERENCES


[22] Intan Ahmad, 2017 Tantangan SDM Pembangunan Indonesia di Era Revolusi Industri 4.0


[34] Raising the bar 3: Essential finance and accounting function staff skills, training needs and challenges in driving productivity. Clarence GOH


[40] Yudi Aziz, 2018. Pendirian Program Studi Sarjana Bisnis Digital, Bandung, FEB UNPAD.