

# Factors Influence The Students' Readiness on Industrial Revolution 4.0

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## I. INTRODUCTION

**Abstract:** *The Fourth Industrial Revolution can be known as Industry 4.0 which are most often associated with industrial development as well as high-tech strategies in the year 2011 at Germany. It considered as a combination with the many technologies such as robotics, artificial intelligence, cloud computing, big data, linked data, 3D printing, biotechnology and the integration of technology with the human body in industrial operations. Challenges are not limited to the financial investments required for the acquisition of new technologies for Industrial Revolution 4.0 but also in relation to the availability of qualified personnel at all levels of the organization that are able to cope with the increasing complexity of the future production system. Thus the organization should have identify the qualified candidates that suitable for the company in future. Most of the previous studies has shown and more focused on the readiness among graduate students are needed to overcome the new technology. In addition, there are no significant statistical outcomes stated about the factors influence the readiness of students on industrial revolution 4.0. This quantitative research aimed to identify the factors that influence the readiness of the undergraduate's students of Universiti Tun Hussein Onn (UTHM) towards industrial revolution 4.0. Quantitative research method is practiced in this research. 5 point Likert scale has been used in the questionnaire to collect the data. The research sample is composed of 200 students from final year student of FPTP. Results of the research show that there is no relationship between the technical skills and non-technical skills of the student's readiness towards Industrial Revolution 4.0. Moreover, implications of the findings, suggestions for future studies and recommendations for proactive implementation and action to be taken by future researcher also presented.*

**Index Terms:** *Industrial Revolution, readiness, skill*

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The Fourth Industrial Revolution commonly referred to as Industry 4.0 is the driver of the internet of things, industrial internet, cloud-based manufacturing and smart manufacturing. For example robotics, artificial intelligence, the autonomous vehicle, 3D printing, nanotechnology, biotechnology, material science, energy storage and so (Kuruczleki, Pelle, Laczi, & Fekete, 2012). In the present day, employers expect graduates to be prepared with generic skills and competencies such as problem solving skills, communication skills, interpersonal skills, lifelong learning and becoming a knowledgeable team player capable of addressing challenging problems and managing complex situations at work (David, 2011). There are many techniques used in the acquisition of talent and retention businesses such as head hunting or talent scouts. Thus, a skilled generation need to be created. Most of the countries has focus on student's education especially higher education. At present, higher education is undergoing a generation transformation, as universities adapt to the needs of the 21st century workforce (Rayner, 2015). But the economy that ruled to make graduates working with cognitive-oriented features has come to a great extent, resulting in neglect of affective skills (Willison, 2015). To evaluate the outcome of graduates, this study need to know the extent of readiness among the students. The readiness is a status can be characterized as the extension to which representatives are seen to have the mentalities and properties that make them arranged or prepared in workplace for accomplishment in the adaption on another learning and aptitudes upheaval of Industry 4.0 (Caballero & Walker, 2010).

Given the changing nature of work, the extent to which "getting ready" graduates are seen as demonstrating the potential in terms of job performance and career progression (Caballero & Walker, 2010). To prepare students for work environments, polytechnics and universities have implemented training schemes in the curriculum to provide students with the opportunity to use knowledge and learning skills from schools in real-world situations and to gain practical experience of real life. Thus, this study identify the factors that influence the readiness of UTHM students on Industrial Revolution 4.0.

### A. Research Problem

Malaysia aspires to enhance the value chain to become a high-income economy and must improve the skilled manpower capacity to meet the rapidly changing needs of the industry (Ahmad, 2011). There is concern that the

benefits of Industry 4.0 in dominating the long-term, leading to what is known as technology unemployment (Roblek, Meško, & Krapež, 2016). Enormous government expenses are allocated annually to develop higher learning in Malaysia. Employees are most affected by changes in digital workplaces. The immediate working environment changes, requiring them to acquire new skills and qualifications. This makes it more critical that companies provide the employees for this change through appropriate training and ongoing education (Dr. Lichtblau et al., 2015).

Most of studies that related to industrial revolution 4.0 is highlight about the lack of skills. Lack of skills among graduates reported as a reason for employers unconcerned to hire them (Ahmadli- & Suhaili, 2015). According to National Economic Advisory Council (Majlis Penasihat Ekonomi Negara, 2010), the lack of skill are consistently the main repelling factors faced by firms (Yusof & Jamaluddin, 2015). Thus the main purpose of this study is to explore the factors that influence the readiness of the undergraduate's students towards industrial revolution 4.0. The research questions of the study is:

1. Does the technical skills factor influence the readiness of UTHM students on Industrial Revolution 4.0?
2. Does the non-technical skills factor influence the readiness of UTHM students on Industrial Revolution 4.0?

## II. LITERATURE REVIEW

Industry 4.0 is focused on creating "smart" environment within production system. There are also the most important changes, which occurs in the manufacturing operations and information technology. Some leading manufacturers of technology for Industry 4.0 are presented. What the fourth industrial revolution does now is creates massive uncertainty. Governments, business enterprises and educational institutions are now seeing how they can react to this (Razman, 2016). Thus, this study finds out the factors of student readiness towards the industrial revolution. This study focus on two skills that required for industrial revolution 4.0 which is technical skills and non-technical skills.

Theory of readiness

The readiness theory is the revision and elaboration of the theory of malfunction by Zartman, (1989). It differs from the pretence of hypocrisy because it uses variable language from the required country and focuses on thinking on the one hand rather than on the shared thinking of both sides for conflict. This change allows the development of some new theoretical ideas laid out in this article and elsewhere, (Pruitt, 2007). Readiness is the character of the organization ("party") that reflects the minds of its top leaders in conflict with other organizations ("enemies"). The willingness to cause conciliatory behaviour. At moderate strength, it encourages a mild peace. If it gets stronger, the party's behaviour becomes more humble and in the end can be a cease-fire and enter into negotiations. An additional level of readiness is required for the party to remain in negotiation and concession. Some readiness is required on both sides of the conflict to initiate negotiations and agreements to be reached. The willingness has two components, which combine multiple. Readiness is

also defined as the 'cognitive precursor to the behaviour of either resistance to, or support for, a change effort (Vakola, 2013).

### A. Industrial Revolution 4.0

Technological advancement has led to dramatic increases in industrial productivity since the beginning of the Industrial Revolution. Now, we are in the middle of the fourth wave of technological developments which is also identified as the enhancement of the new digital industrial technology known as the Industrial Revolution 4.0. It is a transformation dominated by nine basic technology advances (Rubamann et al., 2015). Andreas Hirschi (2017) has characterized the 4.0 industry revolution with key technologies, such as genetics, artificial intelligence, cloud computing, nanotechnology, biotechnology, and 3D printing, among others. Most of these digital technologies have been available currently, but recent cost increases and reliability improvements mean that the use for industrial applications is now more commercially (Roger Strange, 2017).

### B. Conceptual Definition of Student Readiness

Nowadays, students are looking for affordable and flexible learning routes that allow faster time to complete (Christensen, 2014). In addition, they have the ability to choose and choose the education from various institutions and branches. According to Lea Dean Folds a common theme in various studies and policy reports for over 20 years has been a secondary school student lacked the skills required to succeed in post-employment and post-secondary education. High school students must have higher levels of skills and knowledge than the predecessors to ensure and maintain jobs that pay for themselves and the families (Folds, 2013). Manufacturers are struggling to find employees because of the lack of student preparations across several different features. As it turns out, professional organizations and research suggest that all of these features are important and the manufacture will benefit from a set of definitions and step-by-step measures. This approach is reasonable, as the industry needs skilled workers with strong academic backgrounds and problem solving skills (Flory, 2017).

However, most of our graduates are unaware of this current phenomenon, which sometimes cannot see the connection to what they are doing in the classroom with the real world of work they would work on later. Due to such issues as maintaining a good grade of good grades, many students can now spend more time studying and less getting the right workforce, or creating a suitable workplace (Rayner, 2015). It is therefore the duty of university lecturers and management to ensure that these students are equipped with job skills to continue to succeed in the field of employment after graduation (Asmaak & Corresponding, 2010). The level of readiness a student needs in order to enroll and succeed -without remediation- in a credit bearing course at a post-secondary institution that offers a bachelor degree programme, or in a high quality certificate programme that enable students to enter a career path way with potential future advancement (Bhattacharjee & Ray, 2017). Here, students



need to learn to process decision-making including choosing between different alternatives, studying the consequences of specific choices, studying the value of compromise and implementing decisions. At present students must be aware of and recognize the effects of current planning and make decisions about the future lives.

### C. Methods to Measure Student Readiness in Previous Studies

To measure how many students have learned, it is not enough to assess the knowledge and skills at the end of the course or program. We also need to know what they know to come so we can identify more specifically the knowledge and skills they acquire during the course or program. There are various methods or techniques used to measure student readiness and skills at the end of the course or program. We also need to find out what they know coming in so that we can identify more specifically the knowledge and skills they have gained during the course or program. There had been varied of methods or technique used to measure the student readiness. In a study that measures the features of senior school readiness, Lea Dean Folds uses the WorkKeys® method to describe high school senior characteristics (gender, race, route completion, socioeconomic status, highest level mathematics courses, absenteeism, and student movements) and the scores on work readiness steps (used math, reading information, and finding information). The ACT WorkKeys system is used in high schools throughout your country and across the country to help students understand how they can improve the skills for a better job. WorkKeys scores help the employer to take the guesswork out of determining whether an individual is eligible for a post in the organization (Folds, 2013).

In another study by Catherine Lissette Caballero, she has used qualitative methods used to identify the characteristics and characteristics of job readiness and then develop a scale called the Work Skills Scale (WRS) to measure the readiness of work in the graduate population. Qualitative data identifies ten broad categories that demonstrate job readiness such as motivation, maturity, self-growth / development, organizational awareness, technical focus, interpersonal orientation, work attitude, problem solving, conformity and endurance. Dr. Holly Hungerford-Kresser (2016) has used different methods to measure the readiness of students in the study. He uses qualitative research which is a combination of action research methods (Hubbard & Power, 1999; Somekh, 2009, 2006) and case studies (Merriam, 1998; Stake, 1995). The action research methodology is fluid, regular, and allows me to remain critical, adapting to the appropriate way for the task at hand (Hungerford-kresser, 2016). From previous studies, can conclude that most studies have used mixed methods to study students' readiness.

### A. Conceptual Definition of Readiness Factor

Overall, it can be argued that the debate that has taken place so far on the qualifications requirement filed by Industry 4.0 is still in its infancy (Pfeiffer, 2015). Most of the requirements mentioned in the address of social and generic competencies, coupled with a demand that is not specific to "more" IT skills, in some cases embraces the general charm

of programming and modelling the abilities of all skilled workers. Taking the Industrial Revolution leadership from Weiland (2013), they produced the following five parameters for claims arising from Industry 4.0 for skilled worker eligibility were comprehensive integration and information transparency, enhancing production system automation, self-management and decision-making by digital communication and management functions interactive, and flexibility of staff utilization. Graduates must have a combination of both technical and non-technical skills that are deemed to be employed in the current labour market. This is a major factor in student readiness to the Industrial Revolution 4.0.

Technical skills include the ability to use specialized tools, procedures and techniques (Ejiwoy, 2018). Technical skills comprise the skills needed to achieve service delivery tasks, including expertise in using tools and tools. Technical skills are known as computer skills and Internet knowledge. One study found that technical skills were the most sought after in the new payroll (Aasheim et al, 2009). Technical skills are unique to a particular job field (Stone, 2011). The technical skills listed in the previous study include knowledge and application capabilities in computer use, programming languages, database management, optimization and key areas of accounting management, finance and operations management (Nagy, 2008).

Non-technical skills include the cognitive and soft skills Industrial Revolution by graduates to employ the Industrial Revolution knowledge and skills in discipline at work (Jackson & Chapman, 2012). Non-technical skills, commonly referred as generic is core or professional skills, in the students of all disciplines (Jackson & Hancock, 2010). Employers recognize that gaps in non-technical skills affect performance, output and work efficiency (Roepen, 2017). The more fundamental problem is that although there is a basic understanding of developing non-technical skills in higher education, most practitioners are inherently opposed to aligning the undergraduate curriculum with industrial requirement and therefore challenge the curriculum reform strategy (Jackson & Chapman, 2012).

## III RESEARCH METHODOLOGY

Methodology plays a very significant role in the research. It is mainly use as a method for the researcher to carry out a research by using the method of collecting and analyzing the data. The research design, data collection methods and data analysis methods were appropriately selected in accordance to the research objectives. All of these were presented in the part as following.

The conceptual framework of this research shown in Figure 1. The IR 4.0 readiness factors such as technical skills and non-technical skills as independent variables and the students readiness on Industrial Revolution 4.0 as dependent variables. The skills that required for technical skills is digital skills. This skills are required for students to enhance the capabilities and knowledge in handling technological tools. Furthermore, the second factor that influence the readiness factors of Industrial 4.0 is non-technical skills.





Non-technical skills or generic skills are the organization skill that required for an individual to work in an organization.

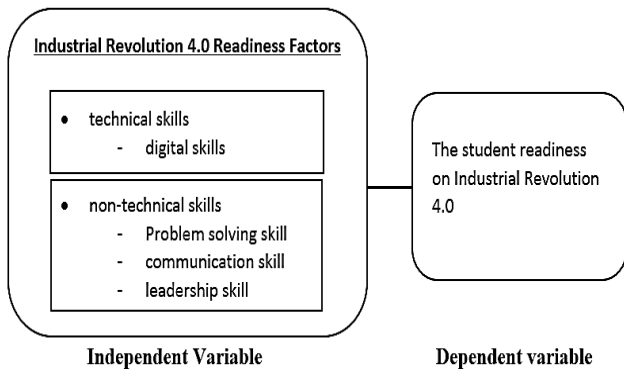


Figure 1: Conceptual framework of the study

In general, we do not know the true value of population parameters - they must be estimated. However, we have hypotheses about the real value. The main purpose of hypothesis testing is to choose between two competing hypotheses about the value of population parameters. The general hypothesis is all "philosophical and theoretical assumptions" and anything that has not been scientifically proven. This means that all of our thinking dedicated to finding a relationship between concepts is a general hypothesis category, as long as they have not been proven in the process of scientific research (Bulajic, 2012). The purpose of this research is to explore the readiness factors influence on the student's readiness on Industrial Revolution 4.0.

**A. Research Design**

In general, the design of the research means the structure to plan and implement certain research. The research design is an important part of the research as it encompasses all four important considerations: strategy, conceptual framework, identification of who and what to learn and tools and procedures that would be used to collect and analyze data. The research design is basically divided into several types, such as qualitative research and quantitative research.

This study was endeavored to determine the factors influence the readiness of UTHM students on Industrial Revolution 4.0. The quantitative research method approach adopt to amass data in this research because it is the best to utilize when explicated the data that amassed among the respondents through questionnaire. Furthermore, the accumulated data from the questionnaires analyzed through Statistical Package for the Convivial Sciences (SPSS) and the current versions is designated as IBM SPSS for finding the relationship of soothsayer variables in this research (Awan, 2012). The SPSS analysis is an incorporated distinct measurements and connections test for dissecting the information from this investigation.

**B. Target Population**

Population is the totality of all subjects that conform to a set of specifications, comprising the entire group of persons that is of interest to the researcher and to whom the research

results can be generalized. The research population for this study comprised all the students that pursuing the studies in Unviersiti Tun Hussein Onn (UTHM). Eligibility criteria specify the characteristics that people in the population must possess in order to be included in the study. In this study, the participants had to be undergraduates students whom currently studying in Faculty of Technology Management and Business at UTHM. An accommodation sampling utilized to amass the data in this research because this sampling is referred to nonprobability where respondents of the target population that meet certain practical criteria such as facile accessibility, obtainability at a given time, or the readiness to participate which able to access the population that is facilely accessible (Etikan, 2016). This sampling technique facilities the researcher's works in accumulating the responses.

A sample size is a subset of the population which be able to identify generalizable to the total population of students in Universiti Tun Hussein Onn for gaining accuracy of the data from this research. The total sample size of this research is 200 respondents which is chosen from table scale of past researcher (Israel, 2003) to determine the factors influence among UTHM students on Industrial Revolution 4.0.

**B. Data Collection**

Polit and Hungler (1999) define data as "information obtained during the course of an investigation or study". In this study, questionnaires were used to obtain data relevant to the study's objectives and research questions. The purpose of the study was to explore the Industrial Revolution 4.0 factors that influence the readiness of UTHM students. The survey technique as essential information was utilized in this investigation with the end goal to accumulate the information with required info. Ordinarily, the questionnaire technique is typically less expensive to direct, generally simple to oversee in light of the fact that they are institutionalized and furthermore moderately free from blunder and proficient to gather information from huge number of respondents. Along these lines, an arrangement of questionnaire was circulate up close and personal to the college understudies in Faculty of Technology Management and Business at Universiti Tun Hussein Onn. Add up to 200 arrangements of questionnaire would dispersed which is equivalent with the example size of respondents in this examination. The respondents was required to finish each of the inquiries on given time. Help is likewise to be given to the respondents particularly in illuminating the question.

**C. Measurement of Variables**

The questionnaire designed to determine factors influence the readiness of UTHM students on Industrial 4.0. The questionnaire was modified to suit the context of the research and the level of target researchers. A five point Likert scale is used and the respondents were required to state the extent to which they strongly agreed by giving a score of '1' which is Strongly Disagree, score 2 is Disagree, score 3 is Neutral, score 4 is Agree and score 5 is Strongly Agree for each statement in the questionnaire. The questionnaire consists of close-ended questions. Furthermore, Information Literacy Education



Implementation Readiness Scale as shown in Table 1 was used in this research to measure the readiness of students on Industrial Revolution 4.0. On the Likert-Scale, the bench marked for the readiness level refer as: between 1.00 and 2.99 is ‘developing readiness, between 3.00 and 3.99 is for ‘approaching readiness’, the following is between 4.00 and 5.00 is about ‘ready’. Even this scale was used in past studies for finding the school librarian’s readiness for information literacy education implementations also more suitable for this research to find the readiness of student on Industrial 4.0 because this scale is used mostly in previous quantitative research studies for questionnaire in Likert-scale.

**Table 1: Readiness Scale**

Likert Scale	Mean Score	Readiness
Strongly Agree	5.00	Ready
Agree	4.00 – 4.99	
Neutral	3.00 – 3.99	Approaching Readiness
Disagree	2.00 2.99	Developing Readiness
Strongly Disagree	1.99	

**IV RESULT AND DISCUSSION**

This survey had took a sample of individuals rather than the population of all students because of time and cost constraint. The respondents were chosen from the final year students of Faculty of Technology Management and Business. The data collected had been analysis using SPSS (Statistical Package for Social Science) version 20 and the last of statistical analysis was presented in this chapter. There were four types of analysis have been used in this study Reliability Analysis Cronbach’s Alpha, Frequency Analysis, Descriptive Analysis and Pearson’s Correlation Coefficient.

**A. Reliability Analysis**

Reliability analysis is the outmost important step in data analyzing that need to be done by any researchers. The main purpose of reliability test is to identify the stability of the data that was gathered. In additions, the reliability testing was used to measure the terms of the variable in the questionnaire and the stability and consistency of the items can be determined by the Cronbach’s alpha. The result was measured based on the range of the coefficient value which is explained as the value is than 0.60, it shows that questions are reliable and can be accept as the measuring tool to measure the concept intended to be measured. The data collected was subjected to reliability of measure. Table 2 illustrates the Rule of Thumb about Cronbach’s alpha coefficient size. The column at the right hand side indicates the strength of association of the reliability analysis based on the alpha coefficient range on the left side of the table.

**Table 2: Cronbach’s Alpha**

Alpha Coefficient Range	Strength of Association
< 0.6	Poor
0.6 < 0.7	Moderate
0.7 < 0.8	Good
0.8 < 0.9	Very Good
> 0.9	Excellent

**B. Demographic analysis**

The results from the data obtained from the respondent around 200 student are shown in table below.

**Table 3: Demographic analysis**

Gender	Items	Frequency	Percent (%)
	Male	31	15.5
	Female	169	84.5
	Total	200	100.0
Race	Malay	160	80.0
	Chinese	32	16.0
	Indian	6	3.0
	Other race	2	1.0
	Total	200	100.0
	Age	19-20 years	1
21-22 years		153	76.5
25-26 years		42	21.0
23-24 years		4	2.0
Total		200	100.0
How much do you know about the industrial Revolution 4.0?	Nothing	40	20.0
	Little	97	48.5
	Something	60	30.0
	A lot	3	1.5
	Total	200	100.0

The demographic data are shown in Table 3 above. In respect to the gender, out of 200 respondents, 84.5 % which is 165 students are led by the female respondent. Meanwhile, the male carry 15.1 % which is 31 students that answered the questionnaire. As for race, the majority of the total respondents were Malay by 80 % which was 160 students, followed by Chinese respondents by 16 % which was 32 students and as for Indian respondents were 3 % that is 6 students.

There are only two respondent that have different race that this three major race and its 1 % respondents. Meanwhile, the age frequency is 76.5 % which is 153 students are led by the range 21 – 22 year’s old respondents. Meanwhile, the respondents range 25 – 26 year’s old carry only 21 % which is 42 students that answered the questionnaire. The respondents range 23 – 24 year’s old carry only 2 % which is 4 students that answered the



questionnaire .There is one person which is age 19 – 20 year's old and it is 0.5 % who answered the questionnaire. Frequency of the respondent on awareness of Industrial Revolution 4.0 shows that 48.5% or 97 students only know little awareness of Industrial Revolution 4.0. Only three student which is 1.5% only know a lot about Industrial Revolution 4.0. Its shows the poor awareness among students about Industrial Revolution 4.0. 60 respondent out of 200 which is 30%, they have some awareness of Industrial Revolution 4.0. It is probably due to more conference and contest that held by the government and non-government organizations.

**C. Student readiness towards industrial revolution**

Table 4 indicated that the mean value for dependent variable which is the student readiness in UTHM towards Industrial Revolution 4.0. Based on the table below, all the students are ready towards Industrial Revolution 4.0. The highest mean score is 4.43 which mean most of the student in UTHM are ready to apply technical skills in job task required during Industrial Revolution 4.0, ready to learn new knowledge provides by management for Industrial Revolution 4.0 and ready to change the working style during Industrial Revolution 4.0. While, the lowest score is 4.18 which mean that the most of the respondent are ready to adapt with changes during Industrial Revolution 4.0, ready to do the tasks in an innovative way towards Industrial Revolution 4.0 and they also ready to attend training provide by the institute for Industrial Revolution 4.0.

**Table 4: Student readiness towards industrial revolution**

Questions	Mean	Std. Deviation	Readiness scale
I am ready to adapt with changes during Industrial Revolution 4.0.	4.18	.385	Ready
I am ready to apply technical skills in job task required during Industrial Revolution 4.0.	4.43	.496	Ready
I am ready to learn new knowledge provides by management for Industrial Revolution 4.0.	4.43	.496	Ready
I am ready to do my tasks in an innovative way towards Industrial Revolution 4.0.	4.18	.385	Ready
I am ready to change my working style during Industrial Revolution 4.0.	4.43	.496	Ready
I am ready to attend training provide by the institute for Industrial Revolution 4.0.	4.18	.385	Ready

Table 5 shows that the mean value for independent variable which is technical skill. Based on the table above, the students are in between the scale of approaching readiness and ready. The highest mean score is 4.20 which mean most of the student in UTHM agreed that they should learn to use e-mail frequently to send or receive message or information by preparing to adapt the changes towards new technology 4.0. This means that students should be able to use the e-mail frequently because nowadays most of the messages or material has been shared or send thru e-mail. While, the lowest score is 3.38 which mean that the most of the

respondent believe that skill in word processing is not that important for Industrial Revolution 4.0.

**Table 5: Technical skill**

Questions	Mean	Std. Deviation	Readiness Scale
I have the skill in access the Internet application or software that required for documentation or searching information.	3.93	.777	Approaching readiness
I have the skill in word processing that important for Industrial Revolution 4.0.	3.38	.793	Ready
As a student, I should learn to use e-mail frequently to send or receive message or information by preparing to adapt the changes towards new technology 4.0.	4.20	.745	Approaching readiness
I have the skill in accessing spreadsheet to key in data that required in the Industry Revolution 4.0.	3.45	.855	Approaching readiness
As a student, I should have the technical skill in handling presentations will be useful towards Industry Revolution 4.0.	4.01	.773	Ready

Table 6 show that the mean value for independent variable which is non-technical skills. Based on the table below, all the students are in the readiness scale of approaching readiness in each of the non-technical skills such as problem solving skills, communication skills and leadership skills. The highest mean score is under the communication skill with 3.78 which mean most of the student in UTHM agreed that they able to start a conversation if they need any assistance regarding any problems or doubt in using the technical skills and knowledge of Industrial Revolution 4.0 if they cannot resolve it by them self. While, the lowest score is under problem solving skill with 3.15 which mean that the most of the respondent believe that they still approaching readiness solve problems without getting assistance from others especially problems that related to technology.

**Table 6: Non-technical skill**

Questions	Mean	Std. Deviation	Ready scale
<b>Problem solving skills</b>			
I have the ability to recognize alternate routes in meeting objectives that related toward the Industrial Revolution 4.0.	3.20	.743	Approach ing readiness
I have the ability to monitors progress toward objectives in risky ventures towards the advance technology application in Industrial Revolution 4.0.	3.23	.796	Approach ing readiness
I have the ability to identify potential outcomes when considering risky venture which will simplify my path towards the Industrial Revolution 4.0.	3.33	.809	Approach ing readiness





Questions	Mean	Std. Deviation	Ready scale
I can take reasonable job related risks that required for the Industrial Revolution 4.0.	3.56	.691	Approaching readiness
I can adapt to different situations that occur in the industry that advanced in technology 4.0.	3.62	.720	Approaching readiness
I have the ability to speak about own opinion or situation that upgrade myself and my organization towards Industrial Revolution 4.0.	3.65	.795	Approaching readiness
<b>Leadership skills</b>			
I have the ability to lead people especially by being up to date to the latest technology application in an organization.	3.47	.769	Approaching readiness
As a student, I have the ability to delegate work to peers that required to sustain in the Industry 4.0.	3.65	.700	Approaching readiness
I have the ability to motivate others to work for a common goal which is to be up to date with the current trend of automation and data exchange in technologies.	3.68	.755	Approaching readiness
As a student, I am willing to take ownership and responsibility for the job by adapting to Industry 4.0.	3.66	.676	Approaching readiness

#### IV CONCLUSION

There is a lot of attributes that can be influenced the students readiness on the Industrial Revolution 4.0. This research is one of the further studies on this topic. This research study opens up new opportunities for the researchers to develop knowledge and responsiveness on current issues that reflect on student's readiness towards Industrial Revolution 4.0. Finally, this study helps the institute, government and trade policy makers to acknowledge that Industrial Revolution 4.0 is important for the country. Thus, it can enhance the Industrial Revolution 4.0 requirements of the students whom will be workforce of our nation.

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