

Investigating the B40 Crowd Worker Technology and Knowledge Readiness in Malaysia

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Abstract - Crowdsourcing is the new concept of outsourcing task that is originally performed inside an organization to an undefinably large, heterogeneous mass of potential group of people. The concept is considered as a new entrepreneurial evolution in digital economy value creation. In Malaysia, crowd sourcing has been recognized as new industry that able to uplift the economy and brings significant benefits to business and people in general. Under the Malaysian government initiatives called Digital Malaysia, various crowdsourcing efforts and programs have been introduced. One of the programs is focuses on generating income through offering work opportunities as crowd workers to all levels of society especially the poor community. However, eventhough the phenomenon has spread very rapid globally, in Malaysia the concept of crowd sourcing is still largely unexplored. Since the phenomenon of micro sourcing is fairly new and still in a formative stage, the comprehensive study on its requirements is critically needed including the readiness of the people in terms of technology and knowledge readiness to work as crowd workers. In this study, Technology Readiness Index model has been adopted to assess potential crowd worker readiness. The study targeted the bottom 40 percent (B40) group income earners with monthly income of less than RM 2, 300 per month. The readiness of bottom 40 percent (B40) income earners has been analyzed and segmented. Based on the results, recommendations to improve the B40 readiness to work as crowd worker have been proposed.

Keywords: Crowdsourcing, B40 readiness, Technology Readiness Index, Technology Acceptance Model, crowd worker.

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I INTRODUCTION

Information and communication technology (ICT) is becoming increasingly important in determining the success of marginalized communities in achieving sustainable development in knowledge economy (Mindila et al., 2013). Nowadays, ICT has been used widely by people in all generations to access to information and knowledge across the globe. Aligned with the evolvement, new phenomenon called crowdsourcing was introduced by Jeff Howe, the author of Wired magazine. In 2006, Jeff Howe defined crowdsourcing as the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in a form of an open call. This can take the form of peer- production (when the job is performed collaboratively), but is also often undertaken by sole individuals (Howe, J., 2006). The crucial prerequisite is the use of the open call format and the wide network of potential laborers.

Crowdsourcing has been implemented in many developing countries such as India and Nepal, whereby platform have been developed as medium for requestors and the crowd workers to communicate and exchange tasks. In Malaysia, under government initiatives program called Digital Malaysia, crowdsourcing industry has been identified as a potential industry to uplift the income of the population in the bottom 40 percent (B40) household income. Digital Malaysia will be using existing and new initiatives that drive towards the development of the Digital Economy in Malaysia. According to 10th Malaysian Plan, the B40 group is the group with monthly income of less than RM2300 per month. Under Digital Malaysia program, crowdsourcing is intended to provide opportunities for the B40 group to earn additional income by performing tasks available in the crowd sourcing

industry (“Chapter 4: moving towards inclusive socio-economic development”, 2010). According to the statistic by Department of Statistic Malaysia, household expenses are increasing every year. Malaysia government believes that by developing the paid crowdsourcing, it gives wide range of opportunities for the B40 income earners to improve their livelihood and lifestyles.

However, even though the phenomenon has spread very rapid globally, in Malaysia the concept of crowdsourcing is still largely unexplored. Since the phenomenon of crowdsourcing is fairly new and still in a formative stage, the comprehensive study on its requirements is critically needed. As a new form of value creation which involve different integrations of micro sourcing components of crowd worker, job provider and crowdsourcing web based platform, proper crowdsourcing readiness initiatives need to strategically plan and evaluate since the integrations are not just complicated by their variation in processes, but also by the complexity inherent in the dependencies exist between different crowdsourcing components.

However, this paper is only focusing on the readiness of crowd workers. Crowd workers in a crowdsourcing industry ecosystem is not only about the numbers of crowd workers available but also the capability of these crowd workers and the quality of the micro tasks that they completed. The research also focuses whether the potential B40 crowd workers having the facilities to complete the job and whether they are mentally ready to get involved in this new environment. According to Arshad et al (2013), the academic research of crowdsourcing is also rare even though there are many successful examples of applying it into the business practical area.

II RELATED RESEARCH

This section discusses the crowdsourcing development and its relatedness to the Digital Malaysia initiatives goal. In order to assess the readiness of potential crowdsourcing players, various readiness models have also been reviewed and considered.

A. Crowdsourcing

People around the globe had been exposed with the cyber world whereby they are now connected to the Internet as long as they are having the Internet connection. Nowadays, Internet is no longer limited to the youngsters, but it is also used by people in all generations. Since Internet is now owned by everybody, it becomes a lot easier for everyone to get and provide information and to do business for example through e-commerce (Janom,

Zakaria, & Arifin, 2012). Aligned with the Internet evolvement, new phenomenon called crowdsourcing was introduced by Jeff Howe, the author of Wired magazine. There are other researchers who name the method as microsourcing (Obal, 2009). Obal (2009) also stated that microsourcing is an emerging outsourcing practice by hands over small part of business functions or applications to small service provider. However, this research will use the term crowdsourcing as it is focus on the bigger range of various business functions that is more likely to enable transformational, as opposed to incremental change.

Until today, crowdsourcing is still in the early adoption phase but has demonstrated a very promising future (Lu, & Zeng, 2011). Indeed, crowdsourcing has become a new society paradigm that might change the outsourcing landscape in the future (Kaganer et al., 2013, Arshad et al., 2013, Salleh et al., 2013). According to Howe (2006) and Kaganer et al (2013), crowdsourcing occur when there is buyers source small projects from scattered global workforce of small providers located in any place around world to give solutions on the problems given. This new phenomenon giving opportunities for everyone to try a new working experience provided that they have the basic facilities and connected to the Internet.

Crowdsourcing is rising as the new online distributed problem solving and production model in which networked people collaborate to complete a task (Arshad et al., 2013, Aris et al., 2013, & Massolution, 2014). For instance, CloudCrowd provides business processes outsourcing by breaking large and high volume projects into small tasks which will be distributed online to the scattered labor force. In addition, crowdsourcing is potential to be problem solving tool for government and the non-profit sector (Sloane, 2012, & Brabham 2009). Crowdsourcing is not only about money and rewards, but the most critical to crowdsourcing success, is the feeling by participants that their efforts were considered and that results come from people initiative (Brabham, 2009, & Kazai et al., 2011).

In addition, since many people nowadays are connected to the Internet, the idea of creating a new job among the Internet user will give opportunities to people to raise their monthly income and at the same time, to improve their skills. Crowdsourcing task does not require outstanding facilities for the people to get involved in it. It is only requires basic amenities such as Internet and personal computers and some skills to complete the job. However, it will be an advantage for those who have the mobile devices such as tablets and smart phones which are more

flexible and convenient to complete the task any time anywhere. In order to encourage participation among crowd, crowdsourcing also been done through social network such as Facebook and Twitter as it involve a lot of participants and interaction from crowd.

The idea of crowdsourcing also, is to make best use of the Internet user to work and give solutions for the companies. Through crowdsourcing, organization can access to talents and skills which would otherwise would not be economically feasible to maintain in-house or acquire out of house. It is also allow faster execution as the tasks can be completed without having to hire or train new employees (Salleh et al., 2013). Considering the wide opportunities of crowdsourcing as a potential industry to bridge the income gap, enhance the quality of life and improve the quality of human capital, Malaysia has included crowdsourcing as one of initiatives under Digital Malaysia program.

B. Digital Malaysia

Aligned with the increasing of Internet usage in Malaysia, the main goal for Malaysia New Economic Model (NEM) is focusing on motivating Malaysia to become a high income economy. In order to achieve that government is now focusing more on B40 income earners since this group experiencing the slowest growth comparing to top 20 percent income earners (“Chapter 4: moving towards inclusive socio-economic development”, 2010). According to Tenth Plan Programs, they are doing a few strategies to improve their living and overall quality of life of the B40 percent income earners. One of the strategies is through Digital Malaysia initiatives. Digital Malaysia is a national program to advance Malaysia towards a developed digital economy by 2020. In Digital Malaysia, the government will be using the existing ICT related initiatives under Malaysia Tenth Plan such as National Broadband Initiative (NBI). There are total of 8 projects under Digital Malaysia which include crowdsourcing.

Poverty in Malaysia is no longer about the absolute poverty, however, it has been categorized into a few other poverty group relative poverty, pockets of persistent poverty and it become more complex when urban poverty category exist (“Chapter 4: moving towards inclusive socio-economic development”, 2010). However, the poor are usually comes from rural areas. Due to their lower skills level and, in certain cases, their remote locations, the poor B40 households are limited in their economic mobility and ability to secure higher paying jobs as well as income opportunities (Arshad et al., 2013). Aligned with

the rise of the digital divide awareness, various readiness assessment models have been developed and revised, which is seen as a useful starting point for this research. Next section discusses on readiness models.

C. Technology Acceptance Model (TAM) and Technology Readiness Index (TRI)

In understanding factors of the attitudes and behavioral attention of individual towards technology acceptance, TAM is one of the most influential, robust and parsimonious model used in previous literature. The model provides a foundation for detecting the influence of environmental factors on individual's beliefs, attitudes and intentions (Davis, 1998). TAM assumes that the perceived usefulness (PU) and the perceived ease of use (PEOU) are dominant factors in shaping a person's attitude and behavioral intention towards adopting the technology (Scheepers, & Wetzels, 2006). The theory believes that if a user has positive feelings on the technology capability to increase his or her job performance, users' attitudes and perception towards using the new technology will be more positive. This attitude will definitely influence the user's behavioral intention and acceptance (Pai, & Huang, 2010).

Thus, as precise analysis of user acceptance on technology and innovation has become a central concern in various disciplines, many researchers have revised the TAM with the purpose to increase its interpretation abilities (Pai et al., 2010, & Yusoff et al., 2010). Some researchers not only revised the structure of TAM, but also added new variables and mediators (Pai, & Huang, 2010). For example Venkatesh & Davis had added new variables to TAM and renamed the model to Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). This research also has added different variables to modify the model in order to get the effectiveness results.

In addition to TAM theory, TRI has been proposed as a model that facilitates the adoption of new technologies. TRI was developed by Parasuraman and Rockbridge Associates, Inc. to measure technology readiness among individual. According to Parasuraman (2000), technology readiness can be defined as people's propensity to embrace and use new technologies for achieving goals in home life and at work. The TRI model believed that people have positive and negative perceptions towards which can be categorized into four distinct sub dimensions of two drivers namely, optimism, innovativeness, and two inhibitors namely, discomfort, and insecurity (Lin, 2007, & Mohd Said et al., 2008).

TRI also further classified technology customers into five technology readiness segments, namely, explorers, pioneers, sceptics, paranoids, and laggards. According to Parasuraman (2000) and Massey et al. (2007), “explorers” are highly optimistic and innovative; they score high in technology readiness and are a relatively easy group to attract to try the latest technology appears in the market. “Pioneers” share the optimism and innovative beliefs of explorers but they simultaneously held back by inherent discomfort and insecurity.

“Sceptics” tend to be dispassionate about technology; they are lowly motivated and need to be convinced of the technology benefits. “Paranoids” are the insecure; they are later adopters of new technology. “Laggards” are the resistant ones, who are likely the last adopters to adopt a new technology.

Thus, grounded by TRI, the various behavioral attention of individual towards technology has helped to exhibit and understand different individual behaviors and attitudes. Even though TRI cannot be used to determine a person’s competency in using technology, the model can be used to indicate the relative strength of each person’s openness to technology including crowdsourcing. This is important to measure the readiness level of individual to participate in the crowdsourcing initiative. The assessment on the personal traits of crowd worker will provide a more comprehensive readiness results which provide better explanatory power. In conclusion, this research chooses the underlying theories through the lenses of acceptance and readiness views. This multidisciplinary views provide much diverse schema in understanding the potential of crowd worker adoption and assimilation of crowdsourcing.

III METHODOLOGY

This section is discussing on the research methodology and research model that was used in the research. The research applied the quantitative method through questionnaires.

A. Research Model

This study is to identify the readiness level of the B40 (B40) income earners to accept and involve in crowdsourcing. Considering the wide opportunity of crowdsourcing to provide additional income to B40, it is important to propose recommendation on how to encourage B40 to understand and accept the concept.

Figure 1 show the research model used to complete this study. The research model has been developed based on the existing Technology Readiness Index Model by

Parasuraman (2000) and the Technology Acceptance Model by Chen et al (2011).

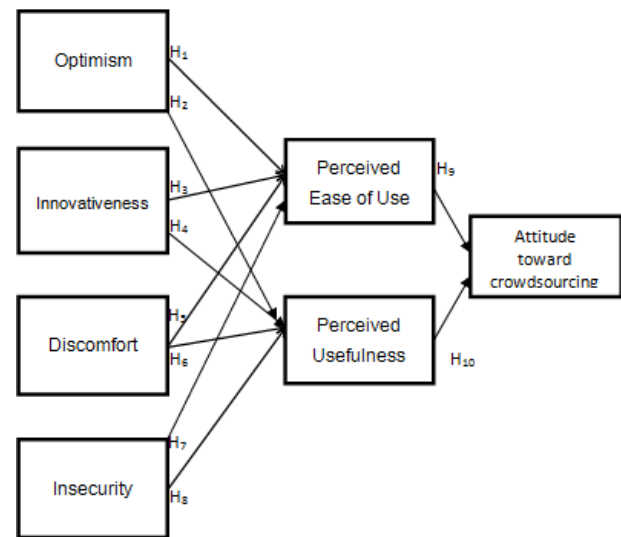


Figure 1. Technology Readiness Acceptance Model

- **Optimism:** Optimism is a positive view of technology whereby participant believe that the existence of the technology and the new environment will increase their control, flexibility, mobility and efficiency (Sloane, 2012). This dimension has been selected as part of the research model to identify whether the respondents for the survey believe that in the new crowdsourcing working environment giving them benefits since it is more mobile and it can be done according to their own free time.
- **Innovativeness:** According to Demirci & Ersoy (2008), innovativeness is a tendency for the user to be a pioneer and thought leader in involving the new technology or environment. Innovativeness dimension being chosen to measure to which extent respondents believes that they are ahead from other people of trying out the service and product and being considered as focus point if there is any issue.
- **Discomfort:** Discomfort defines on the individual lack of control over technology (Demirci, & Ersoy, 2008) and new environment which lead to uneasiness to adapt with the environment into their daily life. Individual tend to think that the crowdsourcing is mainly designed for those who has skills and experience. This dimension has

been chosen in order to determine whether respondents feel comfortable with the current technologies since the crowdsourcing environment will be using the existing technologies to complete the tasks.

- **Insecurity:** Insecurity related to individual distrust of the technology. This is related to discomfort, however it is somewhat focusing more on the transaction using the technology based rather than the technology or environment itself (Demirci, & Ersoy, 2008). Individual with perception of insecurity will tend to doubt whether the technology could work properly or not. This section is more towards respondents' feelings and thoughts whether to believe on the security of the site in order for them to release their personal information. The reason of selecting this dimension is to determine if respondents are also ready in terms of mindset.
- **Perceived Ease of Use:** Perceived ease of use is referring to how individual think that the new phenomenon and technologies giving them less effort in doing jobs comparing to traditional way (Maslin, 2007). However in this study, the questions that related to this dimension will examine if users are comfortable with the current technologies in doing crowdsourcing job. Technologies in this study referring to the Internet, laptops, personal computers and other gadgets such as smartphones. This is to find out if current technologies make users comfortable in using it.
- **Perceived Usefulness:** This is referring to the degree to which the individual believes that using the technology will improve their performance (Maslin, 2007). Individual trusts that by having the technologies, it will lead to a better result in doing job or giving bigger impact to their daily life. This dimension will identify whether respondents confident with the new environment of working will improve their skills and knowledge.
- **Attitude towards crowdsourcing:** The result of the individual trust and their thought of the use of the technology will determine their attitude towards using the technology and adapting to the new environment. This is to prove whether the existence of the new phenomenon or technologies giving positive or negative impact towards user.

B. Hypotheses

Based on Figure 1, below are the hypotheses that have been proposed for this study. IT related assignment is the crowdsourcing IT related task that is assign by job providers to the crowd.

H1: High personal optimism about IT related assignment will lead to high impression for perceived ease of use

H2: High personal optimism in IT related assignment will lead to high impression of perceived usefulness

H3: High personal innovativeness in IT related assignment will lead to high impression of perceived ease of use

H4: High personal innovativeness in IT related assignment will lead to high impression of perceived usefulness

H5: High personal discomfort in IT related assignment will lead to lower impression for perceived ease of use

H6: High personal discomfort in IT related assignment will lead to lower impression of perceived usefulness

H7: High personal insecurity in IT related assignment will lead to lower impression for perceived ease of use

H8: High personal insecurity in IT related assignment will lead to lower impression of perceived usefulness

H9: High perception ease of use the technology will lead to positive attitude on crowdsourcing

H10: High perception of usefulness the technology will lead to positive attitude on crowdsourcing

IV ANALYSIS AND FINDINGS

Shapiro- Wilk normality test had been done to determine whether the data is normally distributed or it is a non-parametric data. For the purpose of this study, Shapiro-Wilk normality had been chosen since it is the most sensitive test compare to other test as it will reject the null hypotheses at the smallest sample size (Schepers et al., 2006, & Ahad et al., 2011). The results of the Shapiro-Wilk test indicated that the data is deviate from the normal distribution. Hence, to continue with the study, Spearman's correlation coefficient test will be used to determine if there is a relationship between dimensions. Table 1 shows the hypotheses results that used the Spearman's correlation coefficient test.

Table 1. Correlation coefficient test result

Variables	Spearman's Correlation (r)	P-Value	Result
H1	0.697**	0.000	Significant
H2	0.698**	0.000	Significant
H3	0.610**	0.000	Significant
H4	0.602**	0.000	Significant
H5	0.427**	0.000	Significant
H6	0.556**	0.000	Significant
H7	0.121*	0.237	Significant
H8	0.099*	0.335	Significant
H9	0.760**	0.000	Significant
H10	0.780**	0.000	Significant

The r -value is used to identify the relationship between variables whereby the relationship has been classified into 3 categories which are strong (r -value ≥ 0.7), medium ($0.3 > r$ -value < 0.7) and weak (r -value ≤ 0.3).

A. Hypothesis 1

H₀: High personal optimism in IT related assignment will lead to lower impression for perceived ease of use.

H₁: High personal optimism in IT related assignment will lead to high impression for perceived ease of use.

The result of Spearman's Correlation Coefficient between personal optimism in IT related assignment and impression for perceived ease of use indicates that P -value = 0.000. Since P -value = 0.000 $<$ 0.01, H₀ is rejected. The high personal optimism is significant with the high impression for perceived ease of use. The result also indicates that the r -value = 0.697, thus the relationship between personal optimism and perceived ease of use is considered as medium.

B. Hypothesis 2

H₀: High personal optimism in IT related assignment will lead to lower impression of perceived usefulness.

H₁: High personal optimism in IT related assignment will lead to high impression of perceived usefulness.

The result of Spearman's Correlation Coefficient between personal optimism in IT related assignment and impression for perceived usefulness indicates that P -value = 0.000. Since P -value = 0.000 $<$ 0.01, H₀ is rejected. Therefore, high personal optimism is significant with the high impression for perceived usefulness. The results also indicate that the r -value is 0.698, thus the relationship

between personal optimism and perceived usefulness is considered as strong.

C. Hypothesis 3

H₀: High personal innovativeness in IT related assignment will lead to lower impression of perceived ease of use.

H₁: High personal innovativeness in IT related assignment will lead to high impression of perceived ease of use.

The result of Spearman's Correlation Coefficient between personal innovativeness in IT related assignment and impression for perceived ease of use indicates that P -value = 0.000. Since P -value = 0.000 $<$ 0.01, H₀ is rejected. Therefore, high personal innovativeness is significant with the high impression for perceived ease of use. The result also indicates that the r -value is 0.610, thus the relationship between personal innovativeness and perceived ease of use is considered as medium.

D. Hypothesis 4

H₀: High personal innovativeness in IT related assignment will lead to lower impression of perceived usefulness.

H₁: High personal innovativeness in IT related assignment will lead to high impression of perceived usefulness.

The result of Spearman's Correlation Coefficient between personal innovativeness in IT related assignment and impression for perceived usefulness indicates that P -value = 0.000. Since P -value = 0.000 $<$ 0.01, H₀ is rejected. Therefore, high personal innovativeness is significant with the high impression for perceived usefulness. The result also indicates that the r -value is 0.602, thus the relationship between personal innovativeness and perceived usefulness is considered as medium.

E. Hypothesis 5

H₀: Low personal discomfort in IT related assignment will lead to lower impression for perceived ease of use.

H₁: High personal discomfort in IT related assignment will lead to lower impression for perceived ease of use.

The result of Spearman's Correlation Coefficient between personal discomfort in IT related assignment and impression for perceived ease of use indicates that P -value = 0.000. Since P -value = 0.000 $<$ 0.01, H₀ is rejected. Therefore, high personal discomfort is significant with the lower impression for perceived ease of use. The result also indicates that the r -value is 0.427, thus the relationship between personal discomfort and perceived ease of use is considered as medium.

F. Hypothesis 6

H₀: Low personal discomfort in IT related assignment will lead to lower impression of perceived usefulness.

H₁: High personal discomfort in IT related assignment will lead to lower impression of lower impression for perceived usefulness. The result also indicates that the *r*-value is 0.556, thus the relationship between personal discomfort and perceived usefulness is considered medium.

G. Hypothesis 7

H₀: High personal insecurity in IT related assignment will lead to lower impression for perceived ease of use.

H₁: High personal insecurity in IT related assignment will lead to high impression for perceived ease of use.

The result of Spearman's Correlation Coefficient between personal insecurity in IT related assignment and impression for perceived ease of use indicates that P-value = 0.237. Since P-value = 0.237 > 0.05, H₀ is accepted. Therefore, high personal insecurity is significant with the lower impression for perceived ease of use. The result also indicates that the *r*-value is 0.121, thus the relationship between personal insecurity and perceived ease of use is considered as weak.

H. Hypothesis 8

H₀: High personal insecurity in IT related assignment will lead to lower impression of perceived usefulness.

H₁: High personal insecurity in IT related assignment will lead to high impression of perceived usefulness.

The result of Spearman's Correlation Coefficient between personal insecurity in IT related assignment and impression for perceived usefulness indicates that P-value = 0.335. Since P-value = 0.335 > 0.05, H₀ is accepted. Therefore, high personal insecurity is significant with the lower impression for perceived usefulness. The result also indicates that the *r*-value is 0.099, thus the relationship between personal insecurity and perceived usefulness is considered as weak.

I. Hypothesis 9

H₀: High perception ease of use the technology will lead to negative attitude on crowdsourcing.

H₁: High perception ease of use the technology will lead to positive attitude on crowdsourcing.

The result of Spearman's Correlation Coefficient between perception ease of use the technology and attitude in using

the crowdsourcing indicates that P-value = 0.000. Since P-value = 0.000 < 0.01, H₀ is rejected. Therefore, high perception ease of use the technology is significant with positive attitude on crowdsourcing. The result also indicates that the *r*-value is 0.760, thus the relationship between perception ease of use the technology and positive attitude on crowdsourcing is considered as strong.

J. Hypothesis 10

H₀: High perception of usefulness the technology will lead to negative attitude on crowdsourcing.

H₁: High perception of usefulness the technology will lead to positive attitude on crowdsourcing.

The result of Spearman's Correlation Coefficient between perception of usefulness the technology and attitude in using the crowdsourcing indicates that P-value = 0.000. Since P-value = 0.000 < 0.01, H₀ is rejected. Therefore, high perception of usefulness is significant with positive attitude on crowdsourcing. The result also indicates the *r*-value is 0.780, thus the relationship between perception of usefulness and positive attitude on crowdsourcing is considered as strong.

V T-TEST READINESS INDEX LEVEL

T-Test has been done for this study in order to determine the readiness of the respondents to accept the crowdsourcing environment. According to Parasuraman (2000), the technology readiness mean of 2.88 and above will be considered as high and 2.87 to 2.12 will be considered as low. Mean for each technology readiness dimensions has been tested to determine respondents' readiness. Table 2 indicates the mean score of the technology readiness dimensions which are Optimism, Innovativeness, Discomfort and Insecurity. Based on the findings of the T-test mean score, researcher found that B40 respondents in this research are the pioneer's category of the technology readiness segment.

Table 2. Result of technology readiness dimension

Optimism	Innovativeness	Discomfort	Insecurity	TRI Segmentation
3.895 High	3.643 High	3.560 High	3.153 High	PIONEERS

"Pioneers" share the optimism and innovative beliefs of explorers but they simultaneously held back by inherent discomfort and insecurity. They desire the benefits of technology, but are more practical about the technology issues and challenges.

Based on the analysis, it can be concluded that there are respondents who tend to think that the idea of crowdsourcing is irrational. This might be due to the feeling of distrust towards the existing technologies for example the phishing or fraud of crowdsourcing web based platform. Other than that, some respondents feel uneasy when they believe that there is someone who has better knowledge than them is using the technology and they may have a fear to be taken advantage.

VI CONCLUSION

In conclusion, based on the analysis done, it shows that bottom 40 percent (B40) micro workers are ready to accept the crowdsourcing concept. Due to the analysis, this group mostly has a good knowledge and skills in the existing information technologies. However, this study also shows that there is still lacks of trust in terms of security and feel uneasy to use the technology when they feel they have been taking advantage.

In order to encourage B40 income earners to accept the crowdsourcing concept without any hesitation, few recommendations are being proposed. Since some of B40 income earners are not computer literate with very limited IT knowledge, continuous ICT trainings need to be provided. Even though crowdsourcing IT related assignments may requires only basic knowledge in technology and office automation applications, some of them might feel uncomfortable doing it. In order to avoid this kind of uncertainty feeling among the B40 income earners, government and private organizations needs to provide more amenities such as the computer centre with the trainers whereby those who has limited skills or facilities can present themselves at the computer centre and get intensive training from the trainers. Although many broadband community centres have been provided nowadays, it is only focusing on the rural areas. The responsible authorities also need to provide these facilities in urban areas since the poverty not only concentrating in rural areas, nonetheless it is also occur in urban areas.

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