The Effects of Perceived Usefulness and Perceived Ease of Use on Acceptance towards Office Assistance Application among Employers to Disabled Employees

Nor Intan Adha Hafit[1], Nor Azairiah Fatimah Othman[2], Syezreen Dalina Rusdi[3], Nurul Salizawatee Mahpar[4], Mohd Fariq Izmeer Mat Sharie[5]

[1234] Faculty of Business and Management, Universiti Teknologi MARA, Selangor Campus, Malaysia

intan520@uitm.edu.my[1]
syezre5475@uitm.edu.my[3]
salizawatee@uitm.edu.my[4]

[5] INPENS International College, Selangor, Malaysia

Abstract

Employment among people with disabilities remains debatable. This paper investigates employers' points of view towards accepting technological assistance for employees with disabilities at the workplace. Specifically, this paper examines the effects of perceived usefulness and perceived ease of use on acceptance towards Office Assistance Application among employers to disabled employees. Acceptance towards any technology has been broadly tested using Davis' Technology Acceptance Model (TAM). To prove if that is the case or not for Office Assistance Applications within the context of employers to employees with disabilities, this research was undertaken to affirm the past research. Data was collected via online questionnaires from 35 employers to Micro Enterprises organization. 6 of surveyed employers were current employers to disabled workers, 18 employers affirmed interest to employ PWDs in the future with 9 employers asserted no interest to hire disabled workers. Data was analysed using Partial Least Square Structural Equation Modelling (PLS-SEM). The result showed two hypotheses were supported evidencing positive and significant relationship between perceived ease of use and perceived usefulness, and relationship between perceived usefulness and technology acceptance. Findings are useful for employers to improve functions of their disabled workers at the workplace along with increasing employment prospects for people with disabilities.

Keywords: perceived usefulness; perceived ease of use; technology acceptance, employers, employees with disabilities

1. Introduction

The World Report on Disability (2011) revealed that the unemployment issue among disabled people affected them to being socially excluded, less economically involved, and living in poverty. These negative effects are due to their unpleasant experiences in accessing many areas such as employment, health support, education, and transportation. In order to ensure persons with disabilities to have a better life, several measures have been carried out worldwide. Nowadays many employment frameworks are manifested in promoting the rights and equality of persons with disabilities in Asia and the Pacific. Among the important key points discussed in the framework is the equal employment opportunity among persons with disabilities. In Malaysia, the government has enacted Persons with Disabilities Act 2008 to provide equal opportunity and workforce diversity to those persons with disabilities. According to Malaysia Persons with Disabilities Act of 2008 (Act 685), "persons with disabilities include those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers, may hinder their full and effective participation in society". This act was enacted to provide equal opportunity for persons with disabilities and to ensure their welfare and well-being are taken care of. As the act came into force, it opens a new dimension and hope to people with disability (Islam, 2015) with the intention of improving the persons with disabilities" quality of life (Jasbir, Abdul Wahab, & Omar, 2013) as well as guaranteeing their human rights fundamental (Ang, 2014; Jasbir et. al, 2013). Employers are required to give

reasonable changes to the workplace environment that allow a disabled individual to perform their job duties. This can include a wheelchair ramp, adjustable computer technology, or arrangement of a service animal. Employers likewise should ensure disable person have indistinguishable rights and benefits from their non-disabled co-workers. Accommodations are intended to be an arrangement among the management and employees.

In addition, there are various studies conducted from the employers" perspective related to persons with disabilities and were summarized between 1999 to 2012 by Ju et al. (2013), such as, (i) employers" attitudes toward workers with disabilities and their American with Disabilities Act (ADA) rights, (ii) employers" willingness to hire disabled employees, (iii) employers" attitudes towards specific types of disabilities, (iv) employers" perception on the employability of persons with disabilities, (v) employers" experience in hiring persons with disabilities, and (vi) factors related to employers" attitudes such as gender, organization size, and experience with disabled employees. Apparently, the process of managing persons with disabilities employees is challenging. Issues arises when organisations do not have sufficient knowledge and skills in managing the disable employees (Kulkarni & Valk, 2010). For instance, a study performed by Kulkarni and Valk (2010) found, firstly, there are limited policies and practices used for managing their disabled employees in the organizations. Additionally, as the policies and practices are limited, most of the organizations and the human resource departments rely on personal experience and self-learning in managing disabled employees (Kulkarni & Valk, 2010). In this regard, each organization has different policies and practices in managing disabled employees because they are unsure whether the methods are applicable to all organizations accordingly (Duff, Ferguson, & Gilmore, 2007). Secondly, accommodating disabled employees in organizations is also another consideration among employers at the organization level (Domzal, Houtenville, & Sharma 2008; Araten-Bergman, 2016). A study conducted by Domzal et al. (2008) identified 20% of officers in charge of managing disabled employees who stated that they have difficulties accommodating disabled employees. The reason for this percentage is due to the fact that they do not know how to assist the disabled employees as their needs differ from one another. In conjunction with the above mentioned, one can say that employers" perspectives on employees with disabilities are still conflicting (Ju et al., 2013; Lengnick-Hall, Gaunt, & Kulkarni, 2008). The irregularity is contributed by a few reasons, for example, challenging and developing current workplace environment, implementation of legislative laws and clause which made the employers believe that they might be sued for improper actions towards the disable employees, and employers still have uncertain information about disable people (Ju, Zhang, & Pacha, 2012; Kaye et al., 2011; Khoo et al., 2012). On top of that, continuing misconceptions among employers have made the issue remain problematic and complicated (Araten-Bergman, 2016; Lengnick-Hall, Gaunt, & Kulkarni, 2008; Luecking, 2008).

Reflecting on the Malaysian scenario, although the government has implemented laws and various policies as well as programs, the participation of the persons with disabilities in the employment continues to be problematic and disappointing (Lee, Abdullah, & Mey, 2011; Othman, 2013; Ta & Leng, 2013). Hence, it opens room for further investigation to explore the employers' experiences in managing persons with disabilities employees as this could help to understand the dynamic nature of disabled employees in the workforce (Othman, 2013). According to Inge, Strobel, Wehman, Todd & Targett (2000), disabled workers with proper support of assistive technology can maintain their employment. Assistive technology (AT) is a "viable complement and/or alternative to a personal assistant for many who are seeking to become more efficient and independent in completing their job requirements" (Strobel & McDonough, 2003). Assistive technology intervention support improve daily work performance and better employment (Inge, 2006) along with positive outcomes on job performance for the workers with disability (Sauer, Parks & Heyn, 2010). Since "greater knowledge about persons with disabilities would enhance their hiring prospects" (Kalargyrou, 2012), as such a study on employers' acceptance towards technological assistance for disabled employees at the workplace is worth investigating.

2. Review of The Literature

Challenges in the employment of persons with disabilities

Employers are often making negative assumptions towards disabled workers relative to other abled employees which may resulting resistance to hiring them. In comparison to able employees, " employers are more likely to question the work ethic of disabled workers and their aspirations for career advancement while believing they are more prone to absenteeism, less committed to their work and less capable of getting along with others on the job" (Cunningham, James & Dibben, 2004). Other than that, existing biases and stigmas about disability is one of the leading challenges when considering people with disabilities as a potential pool of labor (Chi-Geng &

Qu, 2003). According to them, such biases and stigmas towards employees with disabilities drive negative attitudes among employers and co-workers. Existing research on employment among people with disability has identified range of barriers that disabled people face in seeking and maintaining employment. One of foremost barriers is to create a workplace that support the needs of disabled employees. According to Houtenville and Kalargyrou (2011), "nature of the work that people with disabilities can do and how to accommodate workers with disabilities" is main obstacles to actively recruit people with disabilities. Houtenville and Kalargyrou notion was supported with Stevens (2002) indicating that employers think that disabled workers cost more to employ as to when preparing workplace that meet their specific needs and requirements, higher insurance claims due to greater possibility of disabled employees get hurt while working and assumption of disabled workers have discipline problems.

Acceptance of Technology

Studies on attitudes assistive technologies and their adoption among persons with disabilities are limited in scope and are very few. This study therefore seeks to provide a background on the technology adoption process and the factors that promote or hinder adoption. To explain the factors that promote or hinder the acceptance of a technology, several models have been proposed, such as the Theory of Reasoned Action -TRA (Fishbein & Ajzen, 1975), Technology Acceptance Model (Davis, 1989), Diffusion of Innovations Theory (Rogers, 1995) and the Unified Theory of Acceptance and Use of Technology (Venkatesh et. al., 2003). Rogers (2003), states that technologies should exhibit a relative advantage over other options for them to be adopted. An adopted technology should be compatible with the users' life and practices. Trialability is a factor for promoting the adoptability of technology by giving the opportunity for a potential user to experience using the innovation itself. For a person to adopt a technology, seeing, hearing about, or otherwise knowing that other persons are using that technology significantly encourages adoption. Further suggestions from Norman et. al., (2002), when deciding to adopt an innovation, the inherent difficulty of using the technology is a major concern. Existing studies have shown assistive technologies for various disability categories exist, and models explaining attitudes towards and their adoption. The Diffusion innovation model Rogers (2003) shows the steps an individual goes through prior to adopting technology. Parette (2000) highlights the stigma caused by disability thus an individual develops an attitude towards an assistive technology and consequently this influences adoption. Down & Stead (2006) noted the lack of awareness of the technologies and the hindrance towards adoption.

Several models on assistive technology adoption have been sited; website accessibility (Jaeger, 2006; 2008) using TAM (Davis, 1989); Virtual Learning (Keller, 2004) using Unified Theory of Acceptance and Use of Technology-UTAUT (Venkatesh et. al., 2003) and Cory (2005) used diffusion of innovations theory Rogers (2003) to study individuals' adoption of assistive technologies. Davis (1989) described the TAM variables as follows: perceived usefulness refers to the degree to which the user accepts that utilizing the technology will improve their work performance. Perceived ease of use refers to how much an individual accepts that utilizing a system would be free from effort. Attitude towards using determines the behavioral intention to use that technology. Behavioral intention to use is described as the user's attitude and the perceived usefulness impact of the person's behavioral intention to utilize the system. TAM manages the external factors influencing perceived ease of use and usefulness. Perceived ease of use and usefulness influences attitudes toward usability that shapes intention to utilize. Perceived usefulness anyway has a direct impact on intention to utilize. It is also the fact that behavioral intention influences the actual behavior. This model has been tested by numerous researchers and the findings are consent to this relationship. As such, to prove if that is the case or not for Office Assistance Applications within the context of employers to employees with disabilities, this research was undertaken to affirm the past research.

Hypothesis 1: There is a positive and significant relationship between perceived ease of use and perceived usefulness

Hypothesis 2: There is a positive and significant relationship between perceived usefulness and technology acceptance

Hypothesis 3: There is a positive and significant relationship between perceived ease of use and technology acceptance

3. Research Methodology

Data Collection Method

Data was collected via online questionnaires from 35 employers to Micro Enterprises organization. Questionnaires was sent to the respondents by What Apps Application. The message contained a link to a set of self-administered questionnaires in Google Form. The process of collection of questionnaires was carried out over a period of 3 weeks. A total of 35 questionnaires were returned and all were usable for this analysis.

Questionnaires Development

The questionnaire consists of two parts. The first part includes the demographic section related to respondents' profiles consisting of 5 items, namely age, gender, business type, presence of employees with disabilities in the organization and willingness to hire disabled employees in the future. The second part consists of Perceived Usefulness, Perceived Ease of Use and Technology Acceptance measurements with a 3-point Likert scales ranged from "1" Agree to "3" Disagree to measure the studied constructs. The survey of this study was conducted based on questionnaires adopted from previous studied done in the field of Technology Acceptance Model (Davis, 1989).

Target Respondents

The unit of analysis in this study is individual. The survey of this study was meant to be answered by current employers to employees with disabilities of Micro Enterprises organization. Other than that, potential employers to Micro Enterprises organization who have interest to employ PWDs in the future were also included in this study. This group of respondents were expected to meet the requirements in providing a valid and accurate view of an employer. For the purpose of this study, data was collected in various organizations cut across businesses, namely wedding planning, water vending, servicing, printing, planting nursery, customer service, home appliance, insurance, IT & business solution, embroidery crafting, education, design, construction, beauty, cosmetic, clothing food & beverage and other.

Sample Size

Following Hogg and Tanis' Probability and Statistical Inference says "greater than 25 or 30" is considered sufficient, this study was tested to 35 employers to Micro Enterprises organization.

Sampling Technique

Since this could not get a list of all the elements of the population, this study opts for non-probability sampling of convenience sampling whereby respondents consist of current employers to employees with disabilities and potential employers who have interest to employ PWDs in the future from Micro Enterprises organization. In convenience sampling, the subjects are chosen according to ease of accessibility to the researchers (Lunsford &Lunsford, 1995).

Data Analysis Planning

The research model was tested using partial least squares structural equation modelling (PLS- SEM) conducted in Version 3.0 of the SMARTPLS statistics software (Ringle, Wende & Becker, 2015).

4. Data Analysis and Result

Result of Demographic Profiles

The number of survey responses were 35 employers. 6 or 7.1% of surveyed employers were current employers to disabled workers. 18 or 68.6% employers indicated interest to hire disabled workers in the future. Employers with no interest towards hiring disabled workers working for them recorded 6 or 25.7% survey responses. Majority of surveyed employers were female (65.7%). Only 28.6% of 35 surveyed employers were male. Most of the employers were 31-40 years (54.3%) with 22.9% aged 20-30 years. The least number of the surveyed employers

aged from 41-50 years (17.1%). For business type, 2.9% of the surveyed employers indicated that they were in wedding planning business, water vending business, servicing business, printing business, planting nursery business, customer service business, home appliance business, insurance, IT & business solution business and embroidery crafting business; 5.8% of the surveyed employers indicated that they were in education, design and construction business; 8.7% of the surveyed employers indicated that they were in beauty, cosmetic and clothing business and 11.6% of the surveyed employers indicated that they were in food & beverage and other business.

Result of Measurement and Structural Model Analysis

In this study, the direction of causality between the constructs and their pointers was reflexive, considering that the indicators are the construct manifestation since the measurement is determined by the constructs itself (Bagozzi, 2007; Mackenzie, Podsakoff & Jarvis, 2005). In spite of the fact that PLS simultaneously estimates the measurement and the structural parameters, the proposed analysis occurred in two phases: (1) the measurement model and (2) the structural model.

Measurement Model

Table 1 shows the measurement scales of the reflective constructs explored by research model. This stidy utilized three tests to decide the f convergent validity and internal consistency of the five reflective constructs: item loading, composite reliability (CR) of the construct and the constructs average variance extracted (AVE).
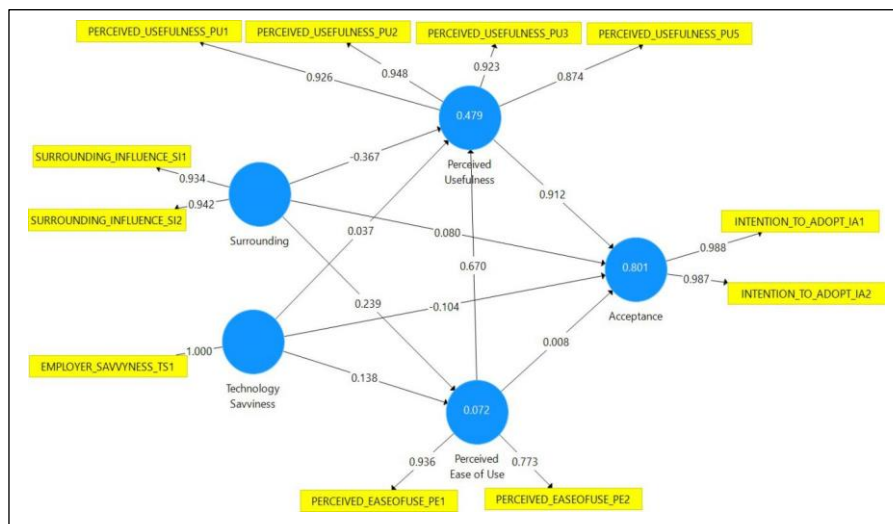

Figure 1. Measurement Model

All item loadings between an indicator and its posited underlying construct factor are greater than 0.7 (Figure 1). There are some items are low loading below than 0.70 (Hair et al., 2016) such as variable perceived usefulness (PERCEIVED_USEFULNESS_PU4), and variable perceived ease of use (PERCEIVED_EASEOFUSE_PE3, PERCEIVED_EASEOFUSE_PE4). Thus, the low loading for items are eliminated. This means that eliminating these indicators in an attempt to achieve the minimum AVE threshold would be pointless. The AVE is the recommended threshold of 0.5, adequately demonstrating convergent validity per Fornell and Larcker (1981). Fornell and Larcker (1981) recommend that the AVE exceeds 0.5, which would mean that more than 50% of the construct"s variance is due to its indicators rather than the indicators in the rest of the constructs. As Table 1 shows, all the constructs have AVE values exceeding 0.5. Thus, more than 50% of the variance of each construct is due to its indicators. Next, the scale reliability analysis. This process allows the researcher to ensure the internal consistency of all the indicators when measuring the concept, in other words, we evaluate how rigorously the indicators are measuring the same latent variable. To evaluate this aspect, we use the Cronbach alpha coefficient and the composite reliability. As Table 1 shows, all the constructs comfortably exceed these Cronbach alpha and CR values which exceed Nunnally and Bernstein (1994) threshold of 0.7. For the single item construct PERF, the Cronbach Alpha, CR, and AVE are not appropriate measures since the indicator's outer loading is fixed at 1.00.

Table 1. Measurement properties of reflective constructs.

Construct	Loading	Cronbach Alpha	CR	AVE
Acceptance		0.975	0.987	0.975
INTENTION_TO_ADOPT_IA1	0.988			
INTENTION_TO_ADOPT_IA2	0.987			
Perceived Ease of Use		0.700	0.847	0.737
PERCEIVED_EASEOFUSE_PE1	0.936			
PERCEIVED_EASEOFUSE_PE2	0.773			
Perceived Usefulness		0.938	0.956	0.843
PERCEIVED_USEFULNESS_PU1	0.926			
PERCEIVED_USEFULNESS_PU2	0.948			
PERCEIVED_USEFULNESS_PU3	0.923			
PERCEIVED_USEFULNESS_PU5	0.874			

To additionally test for discriminant validity, this study differentiates the squared relationship between two latent constructs and their AVE estimates (Fornell & Larcker, 1981). These constructs meet the validity condition of the AVE estimates surpassing the squared relationship between each pair of constructs and it is showing good discriminant validity properties. As can be seen from Table 2, for all the latent variables of the model the square root of the AVE is greater than all the correlations between the variables, which means that all the constructs are more strongly related to their own indicators than to those in the other constructs.

Table 2. Discriminant Validity

	Acceptance	Perceived Ease of Use	Perceived Usefulness
Acceptance	**0.988**		
Perceived Ease of Use	0.549	**0.859**	
Perceived Usefulness	0.883	0.604	**0.903**

Note: The square root of AVE is shown in bold on the diagonal of the correlation matrix, and inter- construct correlations are shown off the diagonal.
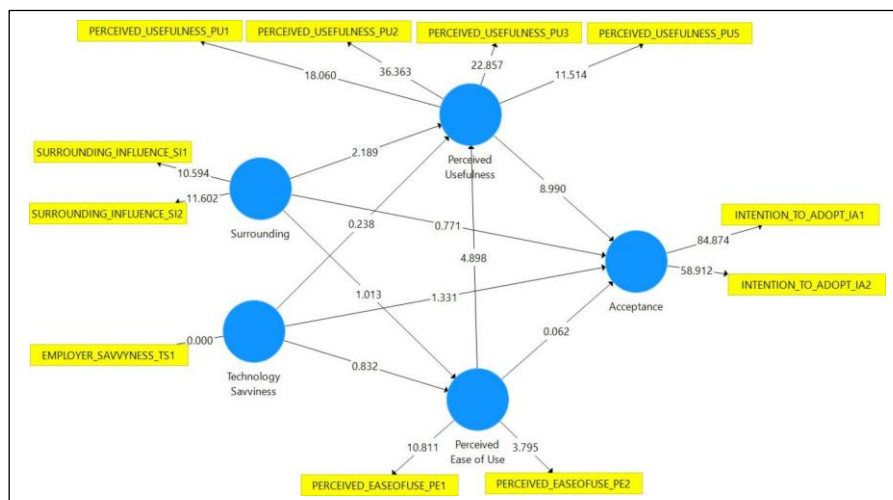
Structural Model

Figure 2. Structural Model

Having confirmed the goodness of fit of the measurement model, we analyze the structural model by evaluating the strength and significance of the relations between the different variables. Table 3 shows the PLS results of the structural models, including standardized path coefficients, with the significance based on two-tailed t-tests for our hypotheses. To test the robustness and quality of the structural model estimate, we followed Peng and Lai (2012) instructions. We ran the structural model utilizing the bootstrap procedure with 5000 rounds of resampling, and the magnitude and significance of the structural paths are steady. The result show two hypotheses are supported which relationship between perceived ease of use □ perceived usefulness (p value = 0.00), and perceived usefulness □ acceptance (p value = 0.00). Meanwhile, hypotheses not supported which the relationship between perceived ease of use □ acceptance (p value = 0.951), which are not significant.

Table 3. Hypothesis Testing

Hypotheses	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Result
Perceived Ease of Use -> Acceptance	0.008	0.025	0.127	0.062	0.951	Not Significant
Perceived Ease of Use -> Perceived Usefulness	0.67	0.692	0.137	4.898	0.000	Significant
Perceived Usefulness -> Acceptance	0.912	0.901	0.101	8.99	0.000	Significant

In particular, this analysis involves evaluating the variance explained of the endogenous variables, measured by their R2, their path coefficients or standardized regression weights (Beta), and their significance levels. A measure of the predictive power of a model is the R2 value of the dependent latent variables, which indicates the share of the constructs variance explained by the model. Chin (1998) recommends the following thresholds: from 0.67, "substantial"; from 0.33, "moderate"; and from 0.19, "weak". The R2 value obtained in this model is weak for the variable perceived ease of use (R2 = 0.072), moderate for PERCEIVED usefulness (R2 =0.469) and substantial to acceptance (R2 = 0.801).

5. Conclusions

The evidence show that this research is in line with previous researches. Perceived usefulness, perceived ease of use and acceptance towards technology are positively related. However, since nature of disability among disabled workers are vary, employers should take into account disability type when opting for certain assistive technology. The assistive technology should be inclusive of disabled workers particular needs and wants that improve their functionality at the workplace. Given the significance of subjective norm, the department and company as a whole should take a positive position towards system acceptance. Organization wide support is advised, presumably with a huge training program and a permanent help desk with a favourable organizational climate. Since, many existing researches support claims that this population requires assistance to increase job skills and employability, the finding of this study are useful for employers to improve functionalities of their disabled workers at the workplace along with increasing employment prospects for people with disabilities.

REFERENCES

Ang, M. C. H. (2014). Do Persons with Disabilities Act (2008) and organisational culture influence managerial intention to hire persons with disabilities? *The Malaysian perspective. Management Journal.*

Araten-Bergman, T. (2016). Managers' hiring intentions and the actual hiring of qualified workers with disabilities. *The International Journal of Human Resource Management.*

Bagozzi, R. P. (2007). On the meaning of formative measurement and how it differs from reflective easurement: Comment on Howell, Breivik, & Wilcox. *Psychological Methods*, 12, 229–237.

Chin, W. W. (1998). The partial least squares approach to structural equation modelling. In G. A. Marcoulides (ed.), Modern methods for business research (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum. Harrington, A. (2005). *Modern Social Theory*. 1-13.

Cory, R. C. (2005). Identity, support and disclosure: Issues facing university students with invisible disabilities. Unpublished doctoral dissertation, Syracuse University, Syracuse, New York, USA.

Cunningham, I., James, P. & Dibben, P. (2004). Bridging the gap between rhetoric and reality: Line managers and the protection of job security for ill workers in the modern workplace. *British Journal of Management*, 15, 274–90.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.

Duff, A., Ferguson, J., & Gilmore, K. (2007). Issues concerning the employment and employability of disabled people in UK accounting firms: An analysis of the views of human resource managers as employment gatekeepers. *British Accounting Review*.

Domzal, C., Houtenville, A., & Sharma, R. (2008). Survey of employer perspectives on the employment of people with disabilities: Technical report (Prepared under contract to the Office of Disability and Employment Policy, U.S. Department of Labor).

Down, K., & Stead, E. (2006) Assistive technology workforce development. Appendix 4 Self management in assistive technology. Foundation for Assistive Technology.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, Mass; Don Mills, Ontario: Addison-Wesley Pub. Co.

Fornell, C. & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50.

Harris, A. L., Lang, M., Yates, D. & Kruck, S. E. (2008). Incorporating Ethics and Social Responsibility in IS Education. *Journal of Information Systems Education*, 22(3), 183-189.

Harun, R., Hock, L. K. & Othman, F. (2011). Environmental Knowledge and Attitude among Students in Sabah. *World Applied Sciences Journal*, 14, 83-87.

Hair, Jr, J. F., Sarstedt, M., Matthews, L. M. & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS part I–method. *European Business Review*, 28(1), 63-76.

Hirwan Jasbir, Harlida Abdul Wahab, H. O. (2013). Right of disabled person under persons with disabilities act 2008: A case study in the state of Perlis. *Business and Information*.

Houtenville, A., & Kalargyrou, V. (2011). Right of disabled person under persons on Recruitment Practices, Strategies, and Challenges in Leisure and Hospitality. *Cornell Hospitality Quarterly*, 1–13.

Inge, K. J. (2006). Assistive Technology as a Workplace Support. *Journal of Vocational Rehabilitation*, 24, 67–71.

Inge, K. J., Strobel, W., Wehman, P., Todd, J. & Targett, P. (2000). Vocational outcomes for persons with severe physical disabilities: design and implementation of workplace supports. *Journal of Neuro Rehabilitation*, 15, 175 – 187.

Islam, M. R. (2015). Rights of the people with disabilities and social exclusion in Malaysia. *International Journal of Social Science and Humanity*.

Jaeger, P. T. (2006) "Assessing Section 508 compliance on federal e-Government websites: A multi-method, user entered evaluation of accessibility for persons with disabilities", *Government Information Quarterly*.

Jaeger, P. T. (2008) "User-centred policy evaluations of Section 508 of the Rehabilitation Act: Evaluating e-Government websites for accessibility", *Journal of Disability Policy Studies*.

Ju, S., Zhang, D., & Pacha, J. (2012). Employability Skills Valued by Employers as Important for Entry-Level Employees with and Without Disabilities. *Career Development for Exceptional Individuals*.

Ju, S. & Roberts, E. & Zhang, D. (2013). Employer attitudes toward workers with disabilities: A review of research in the past decade. *Journal of Vocational Rehabilitation*.

Kalargyrou, V. (2012). People with Disabilities: Employers' Perspectives on Recruitment Practices, Strategies, and Challenges in Leisure and Hospitality. *Cornell Hospitality Quarterly*, 40-53.

Kaye, H. S., Jans, L. H. & Jones, E. C. (2011). Why don't employers hire and retain workers with disabilities? *Journal of Occupational Rehabilitation*.

Keller, J. & Katsuaki, S. (2004). Learner motivation and E-learning design: A multinationally validated process, *Journal of Educational Media*.

Khoo, S., Ta, T., & Lee, L. (2012). The role of the state towards employability of Malaysian PWDs–Myth or reality? *World Academy of Science, Engineering and Technology*

Kulkarni, M. & Valk, R. (2010). Don't ask, don't tell: Two views on human resource practices for people with disabilities. *IIMB Management Review*.

Lee, M. N., Abdullah, Y. & Mey, S. (2011). Employment of people with disabilities in Malaysia: Drivers and inhibitors. *International Journal of Special Education*.

Lengnick-Hall, M.L., Gaunt, P. M. & Kulkarni, M. (2008). Overlooked and underutilized: People with disabilities are an untapped human resource. *Human Resource Management*.

Luecking, R. G. (2008). Emerging employer views of people with disabilities and the future of job development. *Journal of Vocational Rehabilitation.*

Mackenzie, S. B., Podsakoff, P. M. & Jarvis, C. B. (2005). The problem of measurement model misspecification in behavioral and organizational research and some recommended solutions. *Journal of Applied Psychology*, 90, 710–730.

Norman, C. (2002) Innovation Systems, Institutional Change and The New Knowledge Market: Implications for Third World Agricultural Development, *Economics of Innovation and New Technology.*

Nunnally, J. C. & Bernstein, I. H. (1994). Psychometric theory (3rd ed.). New York: McGraw-Hill.

Othman, R. (2013). Workforce diversity in Malaysia: Current and future demand of persons with disabilities, 17.

Parette, H. P., Brotherson, M. J. & Huer, M. B. (2000). Giving families a voice in augmentative and alternative communication decision-making. *Education and Training in Mental Retardation and Developmental Disabilities*

Peng, D. X. & Lai, F. (2012). Using partial least squares in operations management research: A practical guideline and summary of past research. *Journal of Operations Management*, 30, 467–480.

Qing, C. Chi-Geng & Qu, H. (2003). Integrating persons with disabilities into the work force: A study on employment of people with disabilities in foodservice industry. *International Journal of Hospitality and Tourism Administration*, 4, 59-83

Ringle, C. M., Wende, S. & Becker, J. (2015). SmartPLS3. Bonningstedt: SmartPLS. Retrieved from http://www.smartpls.com.

Rogers, E.M. (1995). Diffusion of Innovations. (4th ed.), New York: The Free Press

Rogers, E.M. (2003). Diffusion of innovations (5th ed.). New York: Free Press.

Sauer, A. L., Parks, A. & Heyn, P. C. (2010). Assistive technology effects on the employment outcomes for people with cognitive disabilities: a systematic review. *Disability and Rehabilitation: Assistive Technology*, Early Online, 1–15.

Stevens, G.R. (2002). Employers' perceptions and practice in the employability of disabled people: A survey of companies in Southeast UK. *Disability & Society*, 17, 7, 779–96.

Strobel, W. & McDonough, J. T. (2003). Workplace personal assistance service and assistive technology. *Journal of Vocational Rehabilitation*, 18, 107–112.

Ta, T. L., & Leng, K. S. (2013). Challenges faced by Malaysians with disabilities in the world of employment, disability, CBR.

Tanis, E. A. & Hogg, R. V. (2008). A Brief Course in Mathematical Statistics. Pearson Prentice Hall, Upper Saddle River, NJ.

Venkatesh, V., Morris, M.G., Davis, F.D., & Davis, G.B. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27, 425-478.

WHO (2011). World report on disability. Produced jointly by WHO and the World Bank. WHO Press: Geneva, Switzerland.