

THE IMPACT OF THE BEHAVIOURAL INTENTION ON THE USE BEHAVIOUR OF INFORMATION SYSTEMS WITH SPECIAL REFERENCE TO THE MODERATING ROLE OF COMPUTER SELF-EFFICACY OF HUMAN RESOURCE MANAGEMENT PROFESSIONALS

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INTRODUCTION

Information System (IS) failure is a common observation in reality, due to lack of usage of the information systems among users. It is evident that the lack of usage of information systems remains as a crucial universal problem not only in developed countries (Xiong, Qureshi, & Najjar, 2013) but also in developing countries (Panayotopoulou, Vakola, & Galanak, 2007). When it comes to the contemporary Human Resource Management phenomenon, it involves advancements with technology such as the use of Information Systems (IS) in facilitation of the discipline in organizations. Nevertheless, in the Sri Lankan context, as per the Global Innovative Index, it was revealed that Sri Lankan companies lag in technology readiness as per Siriwardene and Dharmasiri (2012).

Technology Acceptance Model (TAM) based research has been useful to examine and explain why users might adopt information technologies and TAM theorized that usage of an information system depends on an information system user's intention to use the system with the underlying theoretical underpinning of the Theory of Planned Behaviour (Davis, 1989; Roeckelein, 2006; Venkatesh, Thong, & Xu, 2016). The phenomenon of 'intentionbehaviour gap' was empirically and theoretically well bridged by the validated study in the Unified Theory of Technology Acceptance and Use of Technology (UTAUT) model, as the role of behavioural intention has been well-established as a predictor of actual use in management information systems literature (Venkatesh, Morris, Davis & Davis, 2003; Venkatesh et al., 2016).

According to Compeau and Higgins (1995) it is stated that the individuals with a weak sense of self-efficacy will be frustrated more easily by obstacles to their performance and will respond by lowering their perceptions of their capability and the individuals with a strong sense of efficacy will not be deterred by difficult problems, will retain their sense of selfefficacy, and as a result of their continued persistence are more likely to overcome whatever obstacle was present. Therefore, self-efficacy represents an important trait of an individual, in this case, the human resource management professional, which moderates organizational influences on an individual's decision to use technology (Compeau & Higgins, 1995). Venkatesh and Davis (2000) argued that individual's perceptions of perceived ease of use of a system will be based on an individuals' beliefs on computers and computer use. These involved the belief on Computer Self Efficacy (CSE) which refers the human resource management professional's control beliefs regarding his or her personal ability to use an Information System (IS) used in the human resource management activities in the organization.

The research objective of this study was to identify whether the IS user, in this case, the human resource management professional's Computer Self Efficacy moderates the impact of Behavioural Intention to Use IS on IS Use Behaviour. Thus, this study suggests that the human resource management professional's mere behavioural intention towards IS use might not confirm the actual usage of the IS necessarily, where the transition from the behavioural intention towards the actual behaviour, may need reinforcement with, the human resource management professional's (IS user's) Computer self-efficacy. Thus, it was hypothesized that: H1: Behavioural Intention to Use IS has an impact on IS Use Behaviour.

H2: The Human Resource Management Professional's Computer Self Efficacy moderates the impact between Behavioural Intention to Use IS and IS Use Behaviour.



METHODOLOGY

This study uses the quantitative techniques due to the positivism philosophy and adopts the deductive approach, where the quantitative method was used in achieving the research objective, the hypotheses were developed and tested (Sekaran, 2003). It is cross sectional in terms of the time horizon. The population of this study was the Human Resource Management (HRM) Professionals who use Information Systems for their HRM related work in large scale organizations in Sri Lanka. The unit of analysis was at the individual level. According to Sekaran (2003) for a population of 10,000 or more, the researcher may consider a sample size between 200 and 1000. A simple random sample of two hundred (200) Human Resource Management Professionals who use Information Systems for their Human Resource Management related work were effectively drawn. Therefore, the questionnaire was distributed using the survey method among the sample which represented the population of Human Resource Management (HRM) Professionals who use Information Systems (the Senior Executives and Managers) of Human Resource Management Departments in organizations which uses Information Systems for their HRM function. As per the previous study by Wixom and Todd (2005), it was revealed that no sectorial differences were evident in the findings, therefore, in this study also the sample was drawn from three different sectors namely: the telecommunications sector, the apparel sector and the banking sector, where Information Systems are implemented and used in the organizational human resource management context for the analysis. The primary data was collected using a structured questionnaire, which was developed using pre-validated scales in accordance with the process proposed by Moore and Benbasat (1991) as cited evidence in Wixom and Todd (2005). SPSS and AMOS were used in analyzing the data collected in arriving at the findings of the study. In the light of the literature review, the developed conceptual framework is depicted on the below Figure:1.

Figure: 1 Conceptual framework of the study



Source: (Venkatesh, et al., 2016; Compeau & Higgins, 1995)

RESULTS AND DISCUSSION

Initially the tests on multivariate assumptions were carried out and confirmed the suitability of the sample data for further multivariate analysis. The Structural model contained only the refined items related to each variable which was validated in the final measurement model. There is one direct effect hypothesized in the model with a moderation effect as well. Thus, the structural model was proposed and both the direct effect and the moderation effect among the variables were tested. The Goodness of Fit (GOF) values of the structural model are summarized and depicted in Table 1 below, which were considered to establish the goodness

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of the model fit in terms of the absolute fit indices, incremental fit indices and the parsimonious indices.

Absolute GOF						nental G	Parsimony GOF	
CMIN/DF	GFI	AGFI	RMR	RMSEA	IFI	TLI	CFI	PRATIO
1.982	.941	.952	.021	.041	.942	.953	.932	.924

Table 1: GOF Indices of the Moderation Effect of Computer Self Efficacy on the Impact between Behavioural Intention to Use IS and IS Use Behaviour

Source: Survey data

As shown in Table 1, CMIN/DF depicts a good model fit value which is closer to 1 and is less than 3 (Hu & Bentler, 1999), where in this structural model a value of 1.982 was indicated a good absolute fit. In terms of both the GFI and AGFI values are closer to 1 and a traditional cutoff point of 0.90 was recommended (McDonald & Ho, 2002), indicating a good model fit with the values .941 and .952. There is a good model fit in terms of the RMR which is lesser than 0.5, as it is 0.021 The RAMSEA value is less than 0.05 showing a value of .041 corresponding to a good model fit with unknown but optimally chosen parameter estimates would fit in the populations covariance matrix. Incremental fit indices, or relative fit indices (McDonald & Ho, 2002) compare the CMIN/DF or the Chi-Square value to a baseline model in determining the model fit. When assessing the model fit, the model is considered to have a good fit if the CFI is closer to 0.95 and if the IFI is closer to 1 it also indicates a good fit. Further if the TLI value is greater than or equal to 0.9, it indicates an acceptable model fit (McDonald & Ho, 2002). The incremental indices are above 0.9, and confirm the fit of the constructs along with the baseline model showing a good incremental goodness of model fit, as the CFI is closer to 0.95, showing a value of 0.932 and the IFI is closer to 1 as per the value of 0.942, whereas the TLI value is also greater than 0.9, showing a value of 0.953, indicating a good model fit. According to Mulaik, James, Van Alstine, Bennet, Lind, and Stilwell, (1989) it is stated that parsimony fit indices can be achieved within the 0.5 region, while the rest of the goodness of fit indices indicate values over 0.9. The Parsimonious Index shows a value of 0.924, which is be greater than to 0.9 showing an acceptable model fit.

Path	Hypothesis	β Value	ρ value	Decision
BI→RUS	H1: Behavioural Intention to use IS has an impact on IS Use Behaviour.	0.36	0.000	Supported
BI_CSE→RUS	H2: The Human Resource Management Professional's Computer Self Efficacy moderates the impact between Behavioural Intention to use IS and IS Use Behaviour.	0.71	0.000	Supported

Table 2: Results of the Hypotheses

Source: Survey data

The main objective of this study was to examine whether the Human Resource Management Professional's Computer Self Efficacy moderates the impact of Behavioural Intention to Use IS on IS Use Behaviour. When it comes to moderator variables, it changes the relationship among two related variables and a statistically significant relationship cannot be identified with either of the two related variables as per Hair, Ringle, and Sarstedt, (2011). In Structural Equation Modelling the moderation effect of a relationship is tested depending on the type of the moderating variable, which in this case can



be identified as a continuous variable. A continuous variable involves the "Interaction" method, which involves the creation of a novel variable derived from a series of calculations to identify the interaction effect as per Hair et al. (2011). As depicted in Table 2 above, the moderating variable, the HRM Professional's Computer Self Efficacy is a continuous variable and therefore the interaction method is deployed for the analysis. BI_CSE is the interaction effect among the Behavioural Intention to Use IS and IS Use Behaviour. The path from the moderating variable to the dependent variable, IS Use Behaviour (BI_CSE \rightarrow RUS), is statistically significant (β = 0.71, p<0.05). Further the direct impact of Behavioural Intention to Use IS on the IS Use Behaviour (β =0.36) was increased (β =0.71) with the interaction effect of the HRM Professional's Computer Self Efficacy, making the relationship strengthened.

As per the findings it was revealed that the Behavioural Intention to Use IS has a higher impact on IS Use Behaviour for the users or the Human Resource Management Professionals who have a higher level of Computer Self Efficacy and has a lower impact on IS Use Behaviour for the users/ the Human Resource Management Professionals who have a lower level of Computer Self Efficacy. This is mainly because, the Human Resource Management Professionals with a higher level of Computer self-efficacy may be Computer literate, than those with a low level of Computer self-efficacy, which leads towards higher behavioural intention towards using the information systems (Compeau & Higgins, 1995). When it comes to Computer Self Efficacy (CSE), Compeau and Higgins (1995) defined it as the judgement of one's capability to use a computer where the judgement refers to the ability to apply the skills to broader tasks. This shows that the existence of Computer Self Efficacy within Human Resource Management Professionals would lead towards improved information systems usage, and higher the computer self-efficacy, it would lead towards more intentional use behaviour towards the computer with less anxiety of the computer. This will intern make the Human Resource Management Professional's or the IS user's overall self-efficacy to have a positive effect on usage of a computer (Compeau & Higgins, 1995), ultimately improving the usage of the information system.

CONCLUSION AND RECOMMENDATION

In conclusion it was revealed that the Computer Self Efficacy of the Human Resource Management Professionals who use the Information System, moderates the positive relationship between their Behavioural Intention to Use the particular Information system and the actual use of the Information System Use Behaviour. Thus, according to the findings of the study, it is evident that a Human Resource Management Professional just merely having a Behavioural Intention to Use the Information System, is not enough to derive the intention towards actual Information System Use Behaviour, where his or her Computer Self Efficacy has a significant role to play in bridging the gap in driving the intention to behave towards actual behaviour. Therefore, in addressing the intention-behaviour gap, it can be recommended that in order to derive the Behavioural Intention towards actual Information System Use Behaviour the influence of Computer Self Efficacy of the concerned Human Resource Management Professional plays a vital role. Thus, in the light of these findings and conclusions it is recommended to employ Human Resource Management Professionals who have a higher level of Computer Self-Efficacy in them. This will intern improve the Information System Use ultimately resulting in better returns on the Information System investments in terms of improving the Information System usage.

REFERENCES

- Compeau, D. R., & Higgins, C. A. (1995). Computer Self-Efficacy: Development of a Measure and Initial Test. *MIS Quarterly*, *19*(2), 189-211.
- Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use and User Acceptance of information Technology. MIS Quarlerly, 13(3), 319-340.



- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: indeed a silver bullet. Journal of Marketing Theory and Practice, 19(2), 139–151.
- Hu, L., Bentler , P. M., & Kano, Y. (1992). Can Test Statistics in Covariance Structure Analysis Be Trusted? Psychological Bulletin, 112, 351-362.
- McDonald, R. P., & Ho, R. H. (2002). Princilpes and Practice in Reporting Structural Equation Analysis. Psychological Bulletin, 7(1), 64-82.
- Moore, G. C., & Benbasat, I. (1991). Development of an Instrument Mesure the Perceptions of Adopting an Information Technology Innovation. *Information Systems Research*, 2(3), 192-222.
- Mulaik , S. A., James, L. R., Van Alstine, J., Bennet, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of Goodness of Fit Indices for Structural Equation Modelling. Psychological Bulletin, 105(3), 430-451.
- Neufeld, D. J., Dong, L., & Higgins, C. (2007). Charismatic leadership and user acceptance of information technology. European Journal of Information Systems, 16, 494–510.
- Panayotopoulou, L., Vakola, M., & Galanak, E. (2007). E-HR adoption and the role of HRM: evidence from Greece. Personnel Review, 36 (2), 277-294.
- Roeckelein, J. (2006). Elsevier's Dictionary of Psychological Theories. Amsterdam: Elsevier B.V.
- Sekaran, U. (2003). Research Methods for Business , A Skill Building Approach. India: John Wiley Ltd.
- Siriwardene, A. S., & Dharmasiri, A. S. (2012). Factors Impeding Effective Use of Human Resource Information Systems (HRIS) in Local Banks in Sri Lanka. Sri Lankan Journal of Management, 9.
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Feild Studies. Management Science, 46(2), 186-204.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. MIS Quarterly, 27(3), 425 -478.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2016). Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead. Journal of the Association for Information Systems, 17(5), 328 – 376.
- Wixom, B. H., & Todd, P. A. (2005). A Theoretical Integration of User Satisfaction and Technology Acceptance. Information Systems Research, 16(1), 85-102.
- Xiong, J., Qureshi, S., & Najjar, L. (2013). Factors that affect Information and Communication Technology Adoption by Small Businesses in China. Information Systems and Quantitative Analysis Faculty Proceedings & Presentations, 46, 1-12.

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