



## THEORETICAL MODEL FOR GREEN INFORMATION TECHNOLOGY ADOPTION

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### ABSTRACT

Currently, Green Information Technology (IT) has become an active research field in the information system discipline. Green IT adoption is one of the most used approaches for organizations to handle the current environmental issues. In the Green IT adoption studies, decision makers' intention to Green IT adoption have been ignored. While decision makers make decisions, few studies have considered this issue. The lack of a theoretical framework for Green IT adoption based on decision maker's intention in the organizations is considered as a main gap in the Green IT literature. In this regard, a research framework was developed through integrating two theories, Theory of Planned Behavior (TPB) and Norm Activation Theory (NAT). This study contributes to existing knowledge in the field of information systems, monitoring the decision maker's intention for the adoption of Green IT and sustainability through the development of a theoretical framework that identifies the key factors for the adoption of green information technology.

**Keywords:** adoption, green IT, green IS, norm activation model, theory of planned behavior.

### INTRODUCTION

Green Information Technology (IT) is defined as a "systematic application of ecological-sustainability criteria, such as pollution prevention, product stewardship, and use of clean technologies, for the creation, sourcing, use, and disposal of IT technical infrastructure, as well as within the human and managerial components of the IT infrastructure" (Molla and Abareshi, 2011). The impact of using IT in the environment is categorized into two general groups, namely first and second-order effects (Hilty *et al.*, 2006; Köhler and Erdmann, 2004). The first order effect is due to the negative environmental impact of IT production, use, and disposal. Thus, making this effect greener has been termed Green IT, which considers IT's environmental impact primarily as a problem to be mitigated. On the other hand, the second-order effect involves the positive impact of using Information Systems (IS) to improve the eco-sustainability of businesses and society; this is termed Green IS (Molla, 2012; Gholami, *et al.*, 2013; Alemayehu Molla, Cooper, and Pittayachawan, 2011). The preliminary stage of the present study seeks to focus on Green IT. The role of information technology and information system in environmental sustainability has been neglected until the publication of a special issue by MIS Quarterly in 2010 entitled, "Organizational sustainability and information system". After this publication scholars began to focus on the role of IT/ARE on environmental sustainability.

By referring to the perspective of several researchers such as (Butler and Daly, 2009; Chen *et al.*, 2008; Viaro *et al.*, 2010) Information Technology plays a significant role in creating and determining sustainability issues such as Green Information Technology (GIT), which has attracted the attention of policy makers and IT managers. According to Murugesan (2008), each IT lifecycle stage from production to implementation and

disposal causes environmental issues. In 2007, 1.3% of global greenhouse gas emissions were produced by the IT with this sector consuming 3.9 % of the world's electricity (Malmodin *et al.*, 2010). Berthon and Donnellan (2011) reported that, the usage of Internet consumes 10% of the energy in the US. Furthermore, in the perspective of (Berthon and Donnellan, 2011; Chen *et al.*, 2008) IT produced an unwanted effect of increasing the environmental pollution generated by business activities. In contrast, Hilty (2005) believed that the regular IT lifespan is decreasing and the waste of energy on electronics is increasing very fast. Accordingly, as considered by Molla and Abareshi (2012) IT hardware producers and IT manufacturing must practice environmental sustainability including sustainable development, product stewardship, and pollution prevention in the management sector.

Currently, based on different reasons and advantages, organizations carry out plans to follow Green IT solutions. Examples include lower carbon emissions and environmental impact, improved system performance and use, increased collaboration and interaction among constituents, space savings, and an agile workforce. A number of organizations have adopted green IT because it is necessary for them to improve the effectiveness of data centers and to reduce the costs of real estate, cooling, and power (Molla and Abareshi, 2011). Therefore, organizations have the chance to take advantage of Green IT movement to decrease their bad effects on the environment.

In addition, there has been intense discussion on the topic of greening IT, specifically on business environmental effects. In many organizations, most energy is consumed by IT. Hence, decreasing the amount of carbon released into the atmosphere and saving costs are both the results of greening IT (Donston, 2007; Mines,



2008; Nunn, 2007). For instance, ICTs utilization in businesses in Australia played a role in releasing more than 1.5% of all the CO<sub>2</sub> released in the country. This amount is higher than what is released by the cement and civil aviation industries (Molla, 2009). It means that the environmental footprint of business organizations can be decreased through green IT. Rasmussen (2006) estimated that an organization's data center consumes the most energy in terms of cost. Dao *et al.* (2011) estimated that about 1.5% of total electricity (costing more than USD 4.5 billion) is consumed by servers and data centers in the US. Hence, the total environment value of ownership can be increased and the total cost of technology ownership can be reduced by Greening IT. Moreover, it is hoped that Greening IT can have a major influence in enhancing business sustainability creativity (Tung, 2007). Examples of enhancing creativity include improving information systems and analytical tools which assist the dynamic routing of vehicles in order to decrease consumed energy, carrying out emission management systems and eliminating activities resulting in carbon release by using video conferences and other facilities available via the Internet (Jones and Mingay, 2008; Molla, 2008)

The Green Information Technology strategy, design and practice in organizations has evolved into one of the most interesting research areas in the field of information system. Indeed, organizations are in the initial steps in Green IT and ARE adoption and awareness. Moreover, there are very limited empirical studies in the green IT area (Bose and Luo, 2011; Jenkin *et al.*, 2011a; Mishra, Akman, and Mishra *et al.*, 2014).

Most of the early Green IT researches focus on defining a research agenda (Elliot, 2011; Jenkin *et al.*, 2011b; Melville, 2010) and explaining, both theoretically and empirically, the drivers and consequences of adoption of Green IT in organizations (Molla, 2012; Bose and Luo, 2011; Chen *et al.*, 2011). Although organizational green motivations, actions, and the factors that effect are important, they tell only part of the story. For complex problems such as climate change and environmental sustainability, it is essential to also identify individual drivers and actions (Hasan and Dwyer, 2010; Molla *et al.*, 2014). This research, by focusing on individuals, highlights the extent to which IT professionals' value environmental sustainability, taking action to be part of the solution to the global challenge of climate change, and responding to Green IT.

However, despite the importance of organizational decision maker's role in adopting information technology, there is a lack of research investigating the formation of decision makers' intention for the adoption of Green IT since "organizations do not make decisions, individuals do" (Lei and Ngai, 2013a; Liedtka, 1991). Following the upper echelon perspective (Chuang *et al.*, 2009; Hambrick and Mason, 1984) asserted that the strategic decisions of managers are a function of their cognition, perception, and characteristics.

Hence, the purpose of the study is to investigate the decision maker's intention for evaluation and formation of Green IT as well as their intention to adopt Green IT.

This finding underlines Ajzen (1991) idea, stating that the most direct and significant predictor of behavior is intention. Intention acts as intermediary between variables, even the effective variables. Moreover, according to the research on personal norms in TPB, the explained variance of behavior in the TPB as well as behavioral intentions increase due to personal norms Onwezen *et al.* (2013). These results, altogether, show that pro-environmental behavior can be well described by an integrated NAM-TPB model. Hence, to the best of the researchers' knowledge, no study has investigated the adoption of Green IT from the perspective of TPB and NAT theory. Hence, the purpose of the current research is to explore the factors which can affect the adoption of Green IT by decision makers through the integration of TBP and NAT.

The remainder of this is arranged as follows: literature review and presentation of the research model and hypothesis development, the discussion and implication of the paper, followed by the conclusion.

## LITERATURE REVIEW

### Green IT adoption

There are many published literature on green information technology and green information system and its driving factors. Table-1 summarized the findings of the prior studies on Green IT/IS adoption. Conducting a study of technology adoption and diffusion research in the sector of IS is regularly at two dissimilar stages, namely user level and organizational level (Choudrie, 2005). Studies have shown that most of the researches conducted on Green IT adoption have been at organizational level. However, conducted research in the Green IT literature have occasionally examined the development of decision makers' intentions to adopt Green IT despite the significant role of decision maker's intention for adoption of Green IT in the organization. Hence, the present study seeks to discuss and solve this gap through considering the ways in which the strategic orientations and organizational resources will impact the decision makers' views on Green IT.

**Table-1.** Previous studies on green IT/IS.

Authors	Title/objective	Theory	Unit of Analysis
Molla (2009)	The extend of green IT adoption and its driving and inhibiting factors: An exploratory study	Diffusion of Innovation Theory	Organization
Molla (2011)	Green IT adoption: A motivational	Organizational Motivational	Organization



	perspective	Theory	
Molla (2011)	Organizational green motivations for information technology: empirical study	Organizational Motivational Theory	Organizational
Eladwiah, Rahim, and Rahman (2013)	Resource based framework of Green IT capability toward firms' competitive advantage	Natural Resource-Based View Theory	Organizational
Chen <i>et al.</i> (2011)	An institutional perspective on the adoption of Green IT and IS	Institutional Theory	Organizational
Petzer <i>et al.</i> (2010)	Adoption of Green IS in South Africa – An exploratory study	Institutional Theory	Organizational
Chen <i>et al.</i> (2009)	Organizational Adoption of Green IS and IT: An Institutional Perspective	Institutional Theory	Organizational
Gholami <i>et al.</i> (2013)	Senior managers' perception on green information systems (IS) adoption and environmental performance: Results from a field survey	Belief–Action–Outcome Framework	Individual
Koo and Chung (2014)	Examining the eco-technological knowledge of Smart Green IT adoption behavior: A self-determination perspective	Self-Determination Theory	Individual
Lei <i>et al.</i> (2012)	Green IS Assimilation: A Theoretical Framework and Research Agenda	Institutional Theory, Organizational Information Processing Theory and Organization Theory	Organizational
Lei and Ngai (2014)	A research agenda on managerial intention to green IT adoption: from Norm Activation perspective	Norm Activation Theory	Individual
Bose and Luo (2011)	Integrative framework for assessing firms' potential to undertake Green IT initiatives via virtualization – A theoretical perspective	Technology Organization Environment	Organizational
Mishra <i>et al.</i> (2014)	Theory of Reasoned Action application for Green Information Technology Acceptance	Theory of Reasoned Action	Individual
Mithas	Green Information	Belief–	Organizational

and Roy (2010)	Technology, Energy Efficiency, and Profits: Evidence from an Emerging Economy	Action–Outcome Framework	n
Cooper and Peszynski (2008)	E-Readiness to G-Readiness: Developing a Green Information Technology Readiness Framework	G-Readiness Frameworks	Organizational
Alemayehu Molla (2008)	GITAM: A Model for the Adoption of Green IT	Technology Organization Environment and E-Readiness model (PERM)	Organizational
Alemayehu Molla and Cooper (2009)	IT and Eco-sustainability: Developing and Validating a Green IT Readiness Model	G-Readiness Frameworks	Organizational
Alemayehu Molla <i>et al.</i> (2014)	Green IT beliefs and pro-environmental IT practices among IT professionals	Belief–Action–Outcome Framework	Individual
Alemayehu Molla (2009)	Organizational Motivations for Green IT: Exploring Green IT Matrix and Motivation Models	Organizational Motivation Theory	Organizational
Grant and Marshburn (2014)	Understanding the Enablers and Inhibitors of Decision to Implement Green Information Systems: A Theoretical Triangulation Approach	Institutional Theory	Organizational
Nazari <i>et al.</i> (2009)	Green IT Adoption: The Impact of IT on Environment A Case Study on Green IT Adoption and underlying factors influencing It	Technology Organization Environment and Diffusion of Innovation	Organizational
Nedbal <i>et al.</i> (2011)	Sustainable IS Initialization Through Outsourcing: A Theory-Based Approach	Technology Organization Environment and Diffusion of Innovation and Transaction Cost Theory (	Organizational
Lei and Ngai (2013)	Green IT Adoption: An Academic Review of Literature	Technology Organization Environment	Organizational
Ryoo and Koo (2013)	Green practices-IS alignment and environmental performance: The mediating effects of	Resource-Based Theory	Organizational



	coordination		
Wati and Koo (2012)	Toward Green IS Adoption Behaviors: A Self-Determination Perspective	Self-Determination Theory	Individual
Zheng (2014)	The adoption of green information technology and information systems: An evidence from corporate social responsibility	Technology Organization Environment	Organization

According to Table-1, sixteen theories and five frameworks have been identified from the literature. Many theoretical frameworks have been conducted to study Green IT adoption. Limited studies consider more than one theory in order to examine a specific feature of Green IT. In the stage of Green IT literature, the main focus has been given to the effects of institutional pressure and organizational resources on organizational Green IT adoption. Therefore, no research theories have been established for explaining the development of an organizational decision maker's intent adopt organizational Green IT according to the theories of norm activation theory (NAT) and theory of planned behavior (TPB). Additionally, this study seeks to adjust the association of NAM and TBP to clarify the development of an organizational decision maker's intention to adopt Green IT in organizations.

### Theory of planned behavior (TPB)

Theory of planned behavior (TPB) (Ajzen, 1991; Ajzen and Madden, 1986), stress the importance of attitudinal components in behavioral prediction and explanation. To this effect, several studies believe that the use of the TPB as a framework can describe many of the intention and future behavior in the study of environmental behavior (Aguilar *et al.*, 2012; Bamberg and Schmidt, 2010; Kaiser *et al.*, 2005).

The TPB is well recognized in studies of human behavior and has been used to hypothesize the individuals' intention to perform the behavior (Nchise, 2012). The TPB also has potent predictive power for a wide range of human behavior (Ajzen, 1991). TPB is established to describe behavioral intentions in information technology and environmentally responsible behaviors (Akman and Mishra, 2014).

Based on (Conner and Armitage, 1998; Do Valle, Rebelo, Reis, and Menezes, 2005; Egmond and Bruel, 2007; Loo, Campus, Lagoon, Yeow, and Zhuhai, 2013; Tonglet, Phillips, and Read, 2004) TPB has limitations in predicting human behavior, hence advising that further variables should be incorporated within the model. For example, Ajzen and Madden (1986) extended the TPB by the personal norms construct in investigating moral behavior. The findings of Harland *et al.* (1999) indicated

that after personal norms come into the regression analysis, variance of intention increased from 10% to 15%. Manstead (2000) revealed that by including personal norms the predictive power of the model has increased for various behaviors with relevant prosocial dimensions.

### Norm activation theory (NAT)

Schwartz (1977) originally developed the NAT in the altruistic behavior context. Personal norms form the core of this model. The model expressed that the personal norms are specified by two factors: feeling of responsibility for acting the particular behavior and the awareness that acting or not acting the particular behavior has certain consequences. NAT is, the most extensively applied theory in predicting individual pro-environmental behavior (Harland *et al.*, 2007; Lei and Ngai, 2014), supposes that people's pro-social behaviors or pro-environmental behaviors are driven through their personal norm, rather than the personal affect or cost and benefit evaluation. Personal norm is a set of self-set personal moral standards on what should or should not be done Perugini *et al.* (2003). Personal norms guides extensive range of organizational consequences and personal behavior Lei and Ngai (2014). Furthermore, personal environmental norm is the maximum principal predictor of ecological friendly behaviors compared with other predictors Minton and Rose (1997). A personal norm will not affect a person's behavior, unless is activated. If the consequence of the future action is recognized and second, the person accepts the responsibility of both the consequence and behavior (Schwartz, 1977).

### Importance of integrating TPB and NAT

Therefore, we planned to integrate the TPB and Norm Activation Theory (NAT) which is now considered to be a comprehensive and widely accepted moral theory among Moral Theory Psychologists used to explain the formation of an organizational decision maker's intention to adopt Green IT in his/her organization.

In comparing the two theories TPB and NAT, some similarities and dissimilarities are considerable. First, while NAT stressed altruism, which emphasizes benefits to others instead of self-interest, TPB emphasizes personal gain. Second, NAT focuses on internal norms (PNs), but TPB focuses on external ones (subjective norms). Third, TPB includes Behavior Intention (BI) and perceived behavior control (PBC), whereas NAT does not. However, social norms in NAT are comparable by the concept of subjective norms in TPB (Aguilar-Luzón *et al.*, 2012; Boldero, 1995; Ong and Musa, 2011) state that theories are developed in diverse research contexts and are focused on diverse features of social behaviour. It has been pointed out that it is more suitable to combine theories because of their dissimilarities rather than similarities. In line with this, Ong and Musa (2011) have confirmed the effectiveness of integrating TPB and NAT in the prediction of pro-environmental behaviour. In a



study of transportation, Harland *et al.* (1999) revealed that the adding of PNs increases TPB explanatory power regarding the intention or behaviour under investigation.

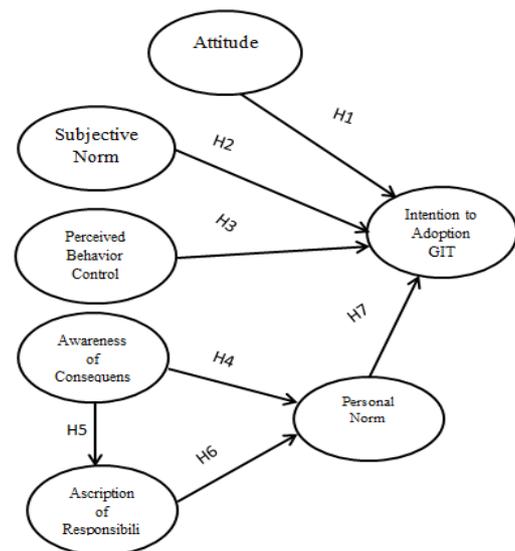
Some studies on psychology have integrated the NAT with the TPB (Bamberg *et al.*, 2007; Bamberg and Möser, 2007; Onwezen *et al.*, 2013). This study attempts to combine variables from two theories: TPB and NAT. Meanwhile, an emerging set of studies have suggested combining different theories to illustrate individuals' proenvironmental behaviors (Guagnano *et al.*, 1995; Park and Ha, 2014). Therefore, this study proposes and tests a model in which three belief constructs from TPB (subjective norms, attitude and perceived behavioral control), and three constructs from NAM (ascription of responsibility, personal norms and awareness of consequences) are combined to predict decision makers' intention to Green IT.

While TPB and NAT have been successfully applied in the pro-environmental area, integrating the two theories into a theoretical framework increases the need for building relationships among the variables from TPB and NAT. Therefore, we planned to integrate the TPB and NAT to explain the formation of an organizational decision maker's intention to adopt Green IT in the organization, rather than using the well-established individual technology adoption models, such as technology acceptance model (TAM) and diffusion of innovation (DoI) theory or unified theory of acceptance and use of technology (UTAUT), since Green IT is different from traditional IT. Individual technology adoption theories such as TAM, UTAUT and DOI are generalized theories which are not precisely designed for explaining an explicit type of technology. They supposed that the adoption of IT is based on the evaluation of cost-benefit. For instance, in TAM, a person's intention to adopt a specific technology is affected by the perceived usefulness (benefit) and the ease of use (cost) of adopting the technology (Davis, 1989). Green IT is not only a group of technologies, but also a set of pro-environmental practices. Meanwhile the pro-environmental practices implementation include value judgments, and it is not best predicted by cost-benefit evaluation (Minton and Rose, 1997). Well-established individual technology adoption models are not the best applicant to clarify the Green IT adoption in organizations. We believe that NAM and TPB will be a better theoretical model for explaining the organizational Green IT adoption.

## RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

From the literature, we could gain a better understanding of the factors that influence the decision makers' intention for Green IT adoption. Therefore, the research model could be proposed on the basis of IT knowledge in literature. A combination of two theories, namely Theory of planned behavior (TPB) and Norm Activation Theory (NAT) was used for proposing a

research model. The literature also supported that, little empirical research exists in the green information technology field and the researchers could not find any study which relays green IT with TPB and NAT together towards combining practicing green IT and individuals' behavioral intention. Hence, there is currently a strong need to develop and gain empirical support for TPB and NAT in terms of green information technology adoption. The proposed research model for the study is shown in Figure-1. that involves three important types of variables, including five independent variables (attitude towards GIT, subjective norm, perceived behavior control, awareness of consequences, ascription of responsibility), one mediator variable (personal norm), and one dependent variable (behavioral intention to use GIT).



**Figure-1.** The conceptual model according NAT and TPB.

The research model addresses the interrelationships among variables that are considered important for the study. Therefore, development of such model must allow hypothesising and testing of certain relationships to examine whether the theory formulated is valid or not (Sekaran and Bougie, 2010). Therefore, the research hypotheses to be tested are now put forward. TPB suggests three determining factors of behavioral intention which are not theoretically dependent. The first one is the attitude towards a behavior that is "the most consistent explanatory factor in predicting the behavioural intention to perform particular behaviours" (Ajzen and Fishbein, 1980; Loo *et al.*, 2013). These research has supposed a strong relationship between attitudes towards behavior and behavioral intention.

Macovei (2015) decomposed TPB to investigate the Consumers' decision to adopt a pro-environmental behaviour. The results of their study shows that there is a direct and positive relationship between consumers'



attitude towards behaving in a pro-environment manner and their intention to behave in a pro-environmental manner. Moreover, Chow and Chen (2009) found that attitude has a direct effect on the intention to practice green computing. Therefore, the following hypothesis is put forward:

**H1:** Attitude towards Green IT has a positive effect on behavioral intention to use green IT.

Subjective norm is the second predictor of TPB; which refers to “the individual’s perception of social pressure to perform the particular behaviour” (Fishbein and Ajzen, 1975). Venkatesh and Davis (2000) suggested that there exists a direct effect of subjective norms on behavioral intention. Han *et al.* (2015) applied NAM to specify the hotel guests’ pro-environmental decision-making in an environmentally responsible manner. The result of their study shows that subjective norm has a positive influence on pro-environmental intention to revisit. Therefore, the following hypothesis is put forward:

**H2:** Subjective norm has a positive effect on intention to use green IT.

Perceived behavioural control refers to “people’s perceptions of the ease or difficulty of performing the behaviour of interest” (Ajzen, 1991; Bandura, 1982; Loo *et al.*, 2013). The perceived individual control of event posits their intention to apply Green IT. Perceived behavioural control was found to have a significant influence on pro-environmental behaviour (Loo *et al.*, 2013; Cheung *et al.*, 1999; McCarty and Shrum, 2001; Chow and Chen, 2009). Hence, this leads to our third hypothesis:

**H3:** Perceived behavioural control has a direct effect on the intention of adopting green IT.

Stern *et al.* (1993) defined Awareness of Consequences as “the belief that people hold that an environmental condition has adverse consequences for other people, other species, or the biosphere.” Schwartz, (1977) found that personal norms are triggered by important situational variables. First, awareness of consequences and ascription of responsibility. Also, Schwartz (1977) posited that altruistic behavior is the outcome of a person being clearly aware of the consequences in terms of social harm of not performing behavior and ascription of responsibility for the performance of that behavior. In the studies conducted by (Harland *et al.*, 2007; Klöckner, 2013; Nordlund and Garvill, 2002) awareness of consequences significantly influence personal norm. Consequently, the study puts forward the following hypothesis based on the above related research:

**H4:** Awareness of consequences has a positive effect on personal norm.

Stern *et al.* (1993) stated that awareness of adverse consequences will lead to an acceptance of responsibility. Individuals with high awareness of consequences are supposed to be more aware of the extensive and specific consequences of possible acts, and

to be more likely to adopt the perspective of those affected when weighing decisions (Schwartz, 1968; Loo *et al.*, 2013). Hence, this study proposes that the more awareness people have of adverse consequences of not practising green acquisition, use, and disposal, the more likely they are to assume responsibility for environmental problems (ascription of responsibility). Hence, it is hypothesised that:

**H5:** Awareness of consequences has a direct effect on ascription of responsibility.

Personal norms must be activated through a second variable that is ascription of responsibility which implies that “an individual must admit responsibility for their behaviour (Klöckner, 2013). Reviews of previous studies have shown the significant effect of ascription responsibility on personal norm (Klöckner, 2013; Wall *et al.*, 2007; Ziaei-Bideh and Namakshenas-Jahromi, 2014). Hence, the following hypotheses are proposed:

**H6:** Ascription of responsibility has a positive effect on personal norm.

According to Schwartz and Howard (1981) personal norm refers to “reflecting feelings of moral obligation to engage in prosocial behavior”. A substantial number of studies have documented the significant effect of personal norm on behavioral intention. The noticeable effect of personal norm on behaviour intention has been proved in a large body of research (Harland *et al.*, 2007; Steg and de Groot, 2010). Hence, it is hypothesised that:

**H7:** Personal norm has a positive effect on intention to use Green IT.

### Implication and conclusion

This in-progress paper, contributes to the theory and practice of the adoption of Green IT. Also, a theoretical model has been provided to discuss the decision making IT manager’s intention to adopt Green IT in his/her organization. This study aims to offer advantages to experts and researchers and to give them a wider insight. The significant contribution of this study in terms of practical and theoretical are as follows: First, to the best of our knowledge this is the first effort which applies individual factors that influence the organizational decision maker’s intention to adopt Green IT through the integration of TBP and NAT. Second, the study has suggested a research model that can be leveraged in future studies. Third, the research model will help to fill the theoretical gap, which is that the development of organizational champion of Green IT is not indefinite, and not enough attention has been paid to the way that an organizational decision maker decides to use Green IT in their organization.

In terms of practical contribution: First, the results of the current study can be used as a guideline for the top managers to manipulate and organize suitable behaviour to use Green IT in order to act more appropriately. Second, in developed countries, many business organizations have information about Green IT



and have considered using it in policy making and organizational strategy. Hence, to fulfil the world's need for sustainable and green development, organizations in countries such as Malaysia are required to embrace Green IT. Therefore, it will assist the Green IT initiator of any organization, especially in Malaysia, in understanding Green IT initiatives. Third, it is essential for the government to introduce rules and regulations related to environmental problems. Furthermore, since there are not enough resources to accelerate Green IT assimilation, rational and logical ways must be used for organizations which consider using Green IT.

In conclusion, this study targeted the decision making IT managers of Malaysian organizations. The researcher uncovered initial concepts, constructs, and a set of preliminary detriments influencing Green IT adoption. As a result, an initial integrated theoretical model for the adoption of Green IT by decision making IT managers was founded by the TPB and NAT. While the research has almost reached its aims, there are some unavoidable limitations. First, results from this study are not generalizable outside of Malaysia. Second, the initial research model is still untested. Thus, as a future work of this study, data needs to be collected and the model will be tested.

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