

The Relationship of WEP towards ICT Adoption

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Abstract— the aim of this paper is to develop a conceptual framework and review the relationship of women entrepreneurship practices and ICT adoption. The methodology used in this research is literature review of previous studies in ICT adoption. Based on literature, WEP have significant relationship towards BP. Women entrepreneur who practices WEP might as well stimulate ICT adoption in business. In this paper, WEP constructs refer to entrepreneurial traits, entrepreneurial experience, management skill, customer relation, training and education and environment while ICT adoption constructs refer to e-commerce and m-commerce. The proposed conceptual framework will be used for further research.

Keywords— women entrepreneur, women entrepreneurship practice, information and communication technology adoption, e-commerce, m-commerce

I. INTRODUCTION

Information and Communication Technology (ICT) are widely use in business of any size. ICT adoption is believed to have significant effect towards business performance [1]. Women entrepreneurs who practice ICT adoption might as well sustain business performance. Goswami and Dutta [2] also mentioned in their research that the survival of business nowadays is depending on the efficient use of ICT. In this context, it is important for women entrepreneur to adopt ICT in their business as it gave women entrepreneur opportunities to open up several of potential business.

In order to meet the demand of ICT adoption, Women Entrepreneurship Practice (WEP) is proposed by researcher to stimulate women entrepreneur ICT adoption. WEP is build based on the determinants factors and barrier face by women entrepreneur ICT adoption. Goswami and Dutta [2] mentioned that the main barriers of ICT adoption are lack of training [3], women entrepreneurs' attitude, knowledge and experience [4]. WEP proposed a conceptual framework that helps to overcome these barriers by using practice. This proposed conceptual framework is then use to find the relationship of WEP towards ICT adoption and developed a hypothesis.

II. LITERATURE REVIEW

The practice of entrepreneurship can be referring as the application of entrepreneurship in practice [5]. Therefore, WEP can be stated as the application of women entrepreneurship in practices. In short, WEP is practices that refer specifically to women entrepreneurs. WEP is conceptualized as six dimensions of constructs which is entrepreneurial trait, entrepreneurial practice, management skill, customer relations, training and education and environment. The development of the WEP, ICT adoption constructs and the conceptual framework is included in this paper. The description analysis of the relationship of WEP towards ICT is also provided in following paragraph.

(A) Women Entrepreneurship Practice (WEP)

Research by Consoli [6] had classified the determinant factor of ICT adoption as individual (trait, top management commitment, high skill, learning, education), technological, environment (customer innovation requirement), economic and organization (human capital). Based on this literature, the factors mentioned above had significant relationship with ICT adoption [7]. To generate the construct of WEP; an analysis of proposed concept was performed in Table 1. The table presents how the determinants factor mentioned above is related with WEP.

TABLE I. ANALYSIS OF PROPOSED WEP CONCEPT

Construct	Related constructs
Entrepreneurial Trait (ET)	Personal trait, entrepreneurial characteristic and internal factor
Entrepreneurial Experience (EE)	Experience and ICT experience
Management Skill (MS)	Top management commitment, human capital and manager.
Customer Relation (CR)	Customer innovation requirement and customer satisfaction
Training and Education (TE)	Education, skill, learning and internal factor
Environment (EN)	Environment and business environment

^a. Analysis of proposed WEP concept

Hence, it is believe that these constructs can stimulate the adoption of ICT in women entrepreneurship. Research by Zmud [8], had also show the positive effect of practices towards ICT adoption. Consequently, WEP might as well become the determinant practice of ICT adoption in women entrepreneurship. To have a clearer picture of WEP concept, Fig. 1 is presented to show the determinant practices (WEP) that have significant relationship with ICT adoption of women entrepreneurs.

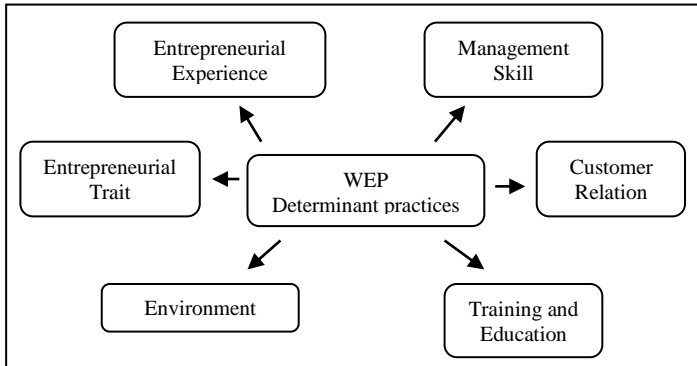


Fig. 1. The Determinant practices (women entrepreneurship practice) for ICT adoption. (Source: Skoko, Buerki & Ceric [9] and Consoli [6], modified by author.)

(B) Definition of WEP constructs

Definition of each WEP construct is provided in Table 2 to give a clearer understanding on each WEP constructs.

TABLE II. DEFINITION OF WEP CONSTRUCTS

WEP	Definition	Authors
Entrepreneurial Trait (ET)	The characteristic, personality and behavior of women entrepreneurs.	Sidik [10]
Entrepreneurial Experience (EE)	Corporate asset and the best teacher for ICT adoption.	Awa, Baridam & Nwibere [11]
Management Skill (MS)	The ability to manage business operation and process.	Ramadani et al [12]
Customer Relation (CR)	Oriented toward establishing mutual understanding of customer needs and closely integrated with ICT adoption.	Blomquist and Wilson [13]
Training and Education (TE)	Women entrepreneur level of education.	Awa, Baridam, & Nwibere [11]
Environment (EN)	The pressure of business environment.	Kurnia et al [1]

^b. Definition of WEP constructs

(C) ICT Adoption

This Information and Communication technology (ICT) development are widely grown due to the introduction and usage of internet and mobile technology. Many studies in the past had also showed positive influence and benefit of ICT adoption [14] [15]. This global phenomenon has become the

major determination of rapid growth of electronic commerce (ECM) and mobile commerce (MCM) transaction over the world [14]. E-commerce and M-commerce is believed to help entrepreneurs to easily market their business or product by using internet and wireless environment [16] [17]. Hence, modern women entrepreneur should be forefront of this technology revolution in order to retain in market and compete with other economic enterprise. In this paper, researcher generates the construct of ICT adoption by analysis of proposed concept based on prior studies. Below Table 2 had shown the summary of ICT adoption constructs suggested by prior studies.

TABLE III. THE SUMMARY OF ICT ADOPTION

ICT Construct	Authors
E-commerce (ECM)	Muhammad Jahangir et al [14]; Zafar, Ishaque and Javaid [18]; Jalali and Soleimani [19]
M-Commerce (MCM)	

^c. Analysis of proposed WEP concept

(D) The Definition ICT Adoption Constructs

To understand and differentiate the usage between e-commerce and m-commerce, the definition of ICT adoption construct is presented in Table 4:

TABLE IV. THE DEFINITION OF ICT ADOPTION CONSTRUCTS

ICT Construct	Definition	Authors
E-commerce (ECM)	Process of exchange, buying or selling by using internet, and computer network.	Turban, King, Mckay, Marshall, Lee and Viehland [17]
M-Commerce (MCM)	Mobile electronic business transaction that support by mobile devices to create wireless business environment	Coursaris and Hassanein [16]

^a. Definition of ICT adoption Constructs

(E) The significant relationship of WEP and ICT

Previous studies show that practices in WEP (entrepreneurial trait, entrepreneurial practice, management skill, customer relations, training and education and environment) have significant relationship with ICT adoption. Awa, Baridam and Nwibere [11] suggested that entrepreneur's experience and education are important in ICT adoption. Dyerson and Spinelli [7] also mentioned that ICT adoption is stimulated by business condition (commitment of top strategic management), organization condition (entrepreneur, manager) and management condition (ICT tool by skilled human resources). Based on the literature, it is related with WEP. Therefore, women entrepreneur might be able to adopt ICT in business management through WEP. The following Table 5 and Table 6 show the summary finding about relationship of WEP and ICT:

TABLE V. THE SUMMARY OF SIGNIFICANTS RELATIONSHIP OF WEP TOWARD ICT ADOPTION

Authors	Finding
Alam, Jani and Ismail [20]	Personality traits have significant impact on the e-commerce adoption.
Papastathopoulos and Beneki [4]	Prior entrepreneurial experience-knowledge of ICT associated with ICT adoption.
Damaskopoulos and Evgeniou [21]	Top management commitment is needed in ICT adoption
Blomquist and Wilson [13]	Customers' innovation requirement on ICT adoption
Kiveu [22]	ICT adoption influence by Internal factor (size, age, education, knowledge and skill)
Kurnia et al [1]	Environment has influence on adoption of various ECM technologies.

^b Summary of significant relationship of WEP and ICT

TABLE VI. REVIEW OF PREVIOUS STUDIES ON SIGNIFICANT RELATIONSHIP OF WEP AND ICT

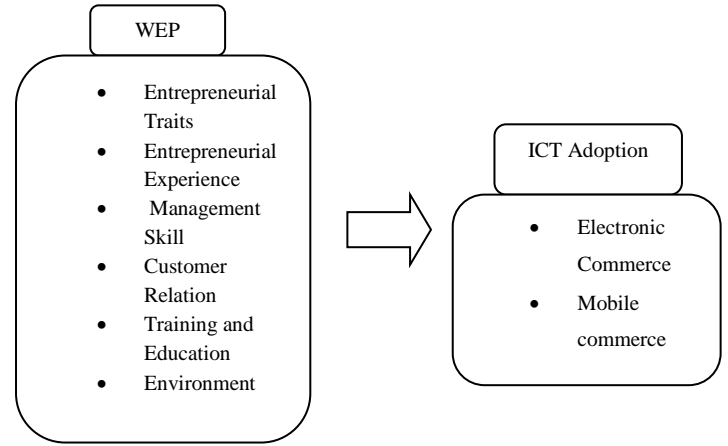
WEP	Authors
Entrepreneurial Trait (ET)	Alam, Jani and Ismail [20]
Entrepreneurial Experience (EE)	Papastathopoulos and Beneki [4]
Management Skill (MS)	Damaskopoulos and Evgeniou [21]
Customer Relation (CR)	Blomquist and Wilson [13]
Training and Education (TE)	Kiveu [22]
Environment (EN)	Kurnia et al [1]

^c Review of previous studies on significant relationship of WEP and ICT

III. THE PROPOSED CONCEPTUAL FRAMEWORK

Based on review of prior studies, a conceptual framework has been proposed to present the relationship of WEP towards ICT adoption. Based on the literature review, it is proposed that WEP have significant relationship with ICT adoption and the hypothesis below is being set up to be tested.

H1: There is a positive and direct significant relationship between women entrepreneurship practice and ICT adoption.



*Note: WEP=Women Entrepreneurship Practices, ICT=Information and communication Technology (ICT) adoption, ⇒ = positive relationship.

Fig. 2. The proposed conceptual framework

IV. METHODOLOGY

The research design in this study is a literature review of relationship between WEP and ICT. Research by Jennings & Brush [23] and Henry, Foss and Ahl [24] suggest that is an appropriate method of conducting review on women entrepreneur. Moreover, Silva [25] also suggested that ICT need more explanatory theories to explain current phenomena. Accordingly, literature review is based on journal and other related article used to find the relationship between WEP and ICT.

CONCLUSION

This study is conducted to analyze the relationship of WEP toward ICT adoption. Each of the practice proposed are the determinants factor of women entrepreneurs ICT adoption. Each of the practices enable women entrepreneur to understand the impact of ICT adoption. After review the relationship, researcher believes that WEP might be able to help women entrepreneur in ICT adoption. In future research, this proposed conceptual framework and hypothesis will be tested using questionnaire and a research model will be build.

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