

Role of Personality Traits of Extension Workers towards Farmer Adoption of Agriculture Extension: Mediating Role of Entrepreneurial Self-Efficacy

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Due to today's economic conditions, agriculture extension is a potential crucial source of economic growth and prosperity. Agriculture extension provides food to people and for its development, requires the development of an agriculture extension workforce. Moreover, agriculture extension workers are considered leaders of organizations (Luvanda, 2015). They introduce new agricultural technology in clients (farmers) of agriculture extension organizations. Further, personality attributes develop and change the behavior of individuals. This study investigates the relationship between personality traits and adoption of agriculture extensions. Similarly, it examines the effect of personality traits such as agreeableness, conscientiousness, extraversion, openness to experience and emotional stability, mediated by entrepreneurial self-efficacy, on adaptation of agriculture extension workers. As, personality traits are major components of changing behaviors to fulfil the study purpose, data was collected from Thai farmers by using convince sampling technique. A self-administered questionnaire was used for data collection and smart PLS was used for data analysis. The study findings show that all personality traits have significant and positive relationship with adaptation of new agriculture extension and that entrepreneurial self-efficacy mediates the relationship. According to the results all the hypotheses are accepted and provide significant and positive relationship among variables. The personality traits of conscientiousness and agreeableness have stronger effect on adaptation of new technology as compared to the other personality traits. Practical implications and future directions are provided at the end of the paper.

Key words: *extraversion, agreeableness, conscientiousness, emotional stability, openness to experience, entrepreneurial self-efficacy, adaptation of agriculture extensions.*

Introduction

Globally, agriculture extensions are significantly imperative in agriculture growth and food security for the economy. The agriculture sector is important in economic development in general and specifically to reduce the poverty ratio (Ngongo, 2016). Adoption of agriculture extensions remains a challenge in the agriculture sector. In today's economy, adoption of new technology to meet the demand and supply of agriculture is necessary. Agriculture extension workers are considered vital elements for providing, implementing and evaluating new agriculture technologies such that farmers can increase agricultural productivity. Increase in agricultural productivity is the ultimate aim of agriculture extensions and this can be achieved by developing agriculture leaders.

The adoption of agriculture extensions is defined in this research "the whole process of receiving information about modern agricultural technologies available and then making decisions of bringing the technologies into practice"(Ngongo, 2016). To develop agriculture sector productivity and the farmers, there is a need to develop agriculture extensions, extensions research centers and the extensions workforce. Similarly, Wood (2012), defined personality as components of individuals that differentiate one person from another on the bases of their thoughts and actions. The role of personality traits of extension workers defines their behavior about the adoption of agriculture extensions. The personality traits differentiate their behaviour and this study used the big five personality traits model: extraversion, agreeableness, conscientiousness, emotional stability and openness to experience. The extraversion individuals are more talkative and have strong relationships with people. The agreeableness traits of the big five model are explained as individuals who are helpful and trustworthy. Moreover, conscientiousness individuals are well organized and meet deadlines, their emotional stability means that they have strong control of their mental state and openness to experience as they are imaginative, curious and innovative. The aim of the current study is to examine the role of these personality traits on extension worker adoption of agriculture extensions and how entrepreneurial self-efficacy plays a mediating role. The objectives of the current study are as follows:

1. To determine the influence of extension worker extraversion traits on adoption of agriculture extensions.
2. To examine the influence of extension worker agreeableness traits on adoption of agriculture extensions.

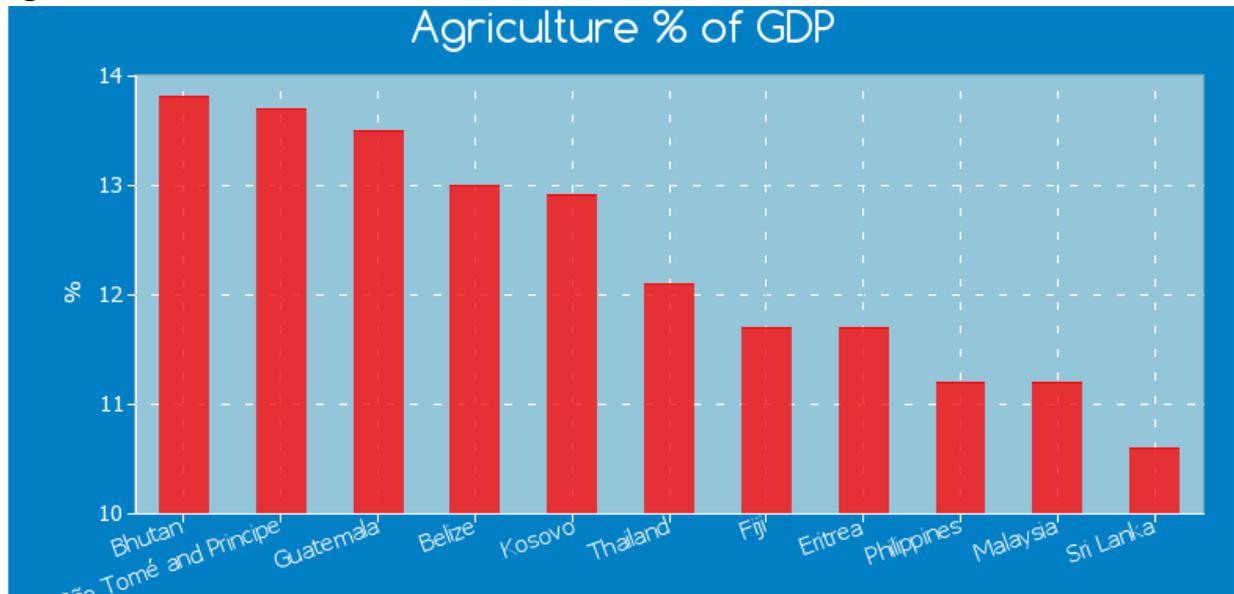
3. To establish the influence of extension worker conscientiousness traits on adoption of agriculture extensions.
4. To determine the influence of extension worker emotional stability traits on adoption of agriculture extensions.
5. To elaborate the influence of extension worker openness to experience traits on adoption of agriculture extensions.
6. To examine the influence of extension worker traits of extraversion, agreeableness, conscientiousness, emotional stability and openness to experience on adoption of agriculture extensions with entrepreneurial self-efficacy considered as mediator.

Based on the above-mentioned objectives the following are the research questions of this study:

1. How do the extroversion traits of extension workers effect the adoption of agriculture extensions?
2. To what extent does the agreeableness trait of extension workers affect agriculture extensions?
3. Does the conscientiousness trait of extension workers have an influence on adoption of agriculture extensions?
4. How does extension worker emotional stability and openness to experience influence adoption of agriculture extensions?
5. To what extent does entrepreneurial self-efficacy mediate the relationship among the big five personality traits: extraversion, agreeableness, conscientiousness, emotional stability and openness to experience in adoption of agriculture extensions?

Further, in the below section of the paper the literature review of variables: modern agriculture extensions, individual personality attributes such as conscientiousness, agreeableness, extraversion, emotional stability, openness to experience and entrepreneurial self-efficacy hypothesis, theoretical framework, methodology, results and future direction and limitation of the study are discussed.

Figure 1.



Source: Factbook (2013)

Figure 1 above shows that the agriculture % of GDP of Thailand is 12.1 % with a global rank of 76. The agriculture sector growth has been in decline for the past decades and so there is need to develop the workers of the extensions organization and educate them in relation to modern technologies for increased agriculture productivity.

Literature Review

Adoption of Agriculture Extensions

Adoption of agriculture extension is conceptualized here as “Adoption of innovations or technologies and describes the whole process of receiving information about the existing modern technologies which then guides the adopters in the decision making process bringing the technologies into practice followed by further spread of the same technology to other individuals in the community”. Adoption of agriculture extensions is a multi-faceted process with many different acts, it does not depend on a single process or act (Ngongo, 2016). Adoption in agriculture extension takes place when farmers or adopters of innovation and invention of technology are open to the information about technology and make decisions about agriculture according to the new technology and information and practices in farming by using these innovations and technologies (Rogers, 2003).

For knowledge transfer, skills about the new technology must move from the technology center, universities and agriculture research centers, to the agriculture farmers, the general process of transferring knowledge is essential. By using science based technologies such as global positioning systems (GPS), many countries’ agriculture sectors, including Brazil, China

and the United States have benefited. Similarly, Akudugu, Guo, and Dadzie (2012) state that the agriculture production system can be developed by increasing farmer availability of and access to information about new technologies and their utilization of those extension technologies. Therefore, extension workers make it possible to change the traditional process of farming by availing, accessing and utilizing modern farming technologies. So, extension workers transfer knowledge and skills about technologies to the farmers and the farmers adopt these technologies into their farming, also transferring the technology to other members of the community. The success of new technology depends upon its adoption by the farmers and the transfer of that technology to other farmers. Moreover, the adoption of technology is of two types; a one is individual adoption and other is aggregate adoption.

Extraversion

An individual having demonstrating extrovert traits is outgoing, ambitious, eager and vigorous (Nasir, Mustaffa, Shahrazad, Khairudin, & Salim, 2011; Raja, Johns, & Ntalianis, 2004). Extravert individuals are motivated and always try for stimulation (Costa Jr & McCrae, 1992). Similarly, they are talkative, expressive and motivated to face challenges and do not fear them (Sulaiman et al., 2013). A person who has less extraversion is not likely to meet with a number of people and is generally quiet and reserved. The adoption of new technology and innovation takes place more easily when the individual demonstrates extraversion behavior. Furthermore, these individuals are motivated towards the behavior to gain knowledge and enhance skills and extravert individuals are curious about daily tasks, are motivated and are risk takers that are more inclined to embrace change and innovation. Extraverted people are outgoing and friendly, they cope with problems very easily because they are talkative and try novel ideas to solve problems (Sung & Choi, 2009). They are positive risk takers and this may lead to innovation (Nicholson, Soane, Fenton-O'Creevy, & Willman, 2005).

It is easy for extraverted people to form relationships and network. According to Zhao and Seibert (2006) people who scored highly as an extravert are cheerful, motivated, talkative and welcoming. The people low on extravert traits are quiet, independent and less connected with others. The extravert trait is necessary in managerial work because they have to deal with a number of subordinates. It is one of the important aspects of leadership because a leader must be motivated, a risk taker and have influence on workers (farmers). Innovation is more easily adopted with extravert leadership because it has the ability to influence the community to adopt new technology. Thus, it can be conceptualized that the big five model traits of an extravert play a crucial role in implementing any change in traditional farming, as there is a good relationship with farmers who can easily follow new steps in adopting agriculture extension.

Agreeableness

Individuals with the agreeableness trait are trustworthy, helpful and kind to others (Goldberg, 1990, 2013) they are also good natured and caring and have a tendency to be tolerant (Sung & Choi, 2009). Further, employees with a high level of agreeableness struggle to maintain harmony and or agreement between groups and maintain positive thoughts of organization employees (Bartram, 2005). Similarly, Hofmann and Jones (2005) explain that those individuals who show helpful, attentive, happy and cooperative behavior in work settings are included under the big five personality trait of agreeableness.

Further, the individual with a high level of agreeableness is trustworthy, sympathetic, helpful, caring and selflessness. On the other hand, the individual with a low level of agreeableness is self-centered, careless and distrustful (Patrick, 2011). People with high levels of agreeableness have positive relationships with others and levels of aggression, anger and argument are low (Jensen-Campbell & Graziano, 2001). Moreover, the individual with high a level of the agreeable trait is more cooperative and trustworthy compared to those with low levels. The adoption of new technologies is difficult in a person who is resistance to change as this creates tension in the work environment. Thus, individuals with high level cooperation and trustfulness are not rude in anxious situations (Sung & Choi, 2009). Previous research elaborated that agreeableness, as a big five personality trait, was the least understood (Jensen-Campbell & Graziano, 2001; Wiggins & Trapnell, 1997).

Conscientiousness

The big five trait of conscientiousness is vital for improving learning and is demonstrated by extensions workers or leaders who have stimulate the habit of innovation. Conscientiousness individuals are self-disciplined, organized, strive for achievement and focus on problem solving. Individuals who are high in conscientiousness are consistent, high goal achievers, well organized and high in self-discipline and dutifulness (Ferguson, James, & Madeley, 2002; Komarraju, Karau, & Ramayah, 2007; Nijhuis, Segers, & Gijsselaers, 2007). Conscientiousness traits develop positivity and an optimistic belief that leads towards to physical health, mental health and adaptive behaviors (Icekson, Kaplan, & Slobodin, 2019). Moreover, if the extension leaders have this ability they can create efficiency and effectiveness by reducing cost and save the time of agriculture farmers by completing all the tasks in a well-disciplined manner. Further, individuals who are more organized, well planned, skilled and purposeful are more achievement oriented and reliable as compared to those who are careless, disorderly and neglectful (van Lieshout, 2000). Similarly, when a person understands the group norms, organization rules and policies easily it is because they are already well organized and achievement oriented themselves. Individuals who have conscientiousness attributes have self-

control, determination, will to achieve, are punctual and determined (Grehan, Flanagan, & Malgady, 2011; Hofmann & Jones, 2005; Smithikrai, 2008).

Emotional Stability

Emotional stability is included under the big five personality traits and deals with individual differences and emotional stability adjustments. Emotional stability increases self-confidence and reduces depression, anxiety and stress. The person who demonstrates this trait can easily deal with anxiety, stress and depression but not emotionally stable people are not well organized and can be victim to embarrassment and hostility (Patrick, 2011; Zhao & Seibert, 2006). The person who is emotionally stable is more predisposed to regulate himself/herself and can control their life and people with high emotional stability complain less about their life. Moreover, they are calm, happy and less worried about problems. To achieve the highest happiness level, emotional stability is necessary. Similarly, people with high emotional stability cope with stress and are less anxious, which affect their individual happiness. The more emotionally stable leaders are happier and this happiness is contiguous, transferring from extension workers to clients of the organization (farmers). Emotional stability and happiness have a strong relationship. Further there is a negative relationship between happiness and emotional stability with neuroticism (Goldsmith, 2016).

Openness to Experience

People who have the big five personality traits of openness to experience are creative, open minded and do not follow the traditional rules for doing things (Smith & Canger, 2004). They are more likely to pursue interpersonal relationships that fulfil emotional needs. The openness to experience trait relates with the rationale of individuals. According to Grehan et al. (2011) accessibility to new ideas, inclination for diverse feelings, concentration on inner feelings and rational curiosity are other features of the openness-to-experience trait. However, in agriculture extension organizations the extension leaders must have innovative ideas to develop new technologies for agriculture development. People high in openness to experience are more likely to be high in creativity and innovation and those low in openness to experience are less creative, less imaginative and are not broad minded. Novel and complex situations are more suitable for openness to experience individuals and openness to experience can empower employees to adopt new technologies more easily, realize new opportunities and make better decisions about change (Naami, Behzadi, Parisa, & Charkhabi, 2014).

Entrepreneurial self-efficacy

Bandura (1977), says that self-efficacy can be defined as an individually perceived personality capability to achieve a specific task. Self-efficacy belongs with the motivational and cognition

process. Self- efficacy is also known as a self-referent by which people evaluate their personal efficacy and this evolution effects choice in performance and decisions about expansion and their consistency when facing problems (Bandura, 1982). The person who is low in self-efficacy is afraid to meet problems and may avoid certain situation that reduce their competencies. On the other hand, the individual high in self-efficacy is more persistent and risk taking, they have strong belief and self-efficacy is component of social cognitive theory. Previous studies elaborate that self-efficacy provided behavioral outcomes. Therefore entrepreneurial self-efficacy in this study is defined as “the degree to which individuals perceive themselves as having the ability to successfully organize and execute tasks such as recognizing opportunities, planning, managing financial resources, and other activities critical to successfully launching and managing a new business”(McGee & Peterson, 2019). Thus, entrepreneurial self-efficacy is important when staring a new business and if the individual demonstrates these personality features they will better adopt new agricultural technologies that improve productivity. This is one of the crucial components of enhancing the ability and growth of organizations and so this study focused on how personality traits directly affect the adoption of agriculture extensions.

Hypotheses Development

- H1. There is positive and significant relationship between extraversion of agriculture extension workers and adoption of agriculture extensions.
- H2. Agreeableness of agriculture extension workers has positive and significant relationship with adoption of agriculture extension.
- H3. There is positive and significant relationship between conscientiousness of agriculture extension workers and adoption of agriculture extensions.
- H4. Emotional stability of agriculture extension workers has positive and significant relationship with adoption of agriculture extensions.
- H5. There is positive and significant relationship of openness to experience trait and adoption of agriculture extensions.
- H6. Extraversion, agreeableness, emotional stability, openness to experience and conscientiousness have positive and significant relationship with adoption of agriculture extensions while mediating by entrepreneurial self-esteem.

Theoretical Framework of study



Methodology

Individual personality does influence the behavior of individuals. The present study is purely based on the personality traits of individuals. The purpose of this study is to examine the impact of personality traits on the entrepreneurial behaviors of individuals.

The study is quantitative and descriptive in nature. The population of the present study is Thai the farmers who own a farm and are self-sufficient. Barlett, Kotrlik, and Higgins (2001) and Krejcie and Morgan (1970) Table guided the researcher in determination of sample size. In the current scenario the exact population number is not known so a suitable approach is the thumb rule formula. According to the thumb rule (Hair et al., 2010) the number of questions are multiplied by 10 to obtain a sample size. Total number of questions are 32. So as per the formula the sample size is 320 respondents.

The data was collected by using a questionnaire which contained questions related to demography of farmers and questions related to the variables. All the questionnaires were adapted from the previous mentioned studies. Scale to measure the personality traits was adapted from a previous study and consisted of five dimensions and 17 items (John, Donahue, & Kentle, 1991) whereas entrepreneurship behavior was measured by using an 8 item scale (Farrukh, Ying, & Mansori, 2016).

Findings

Confirmatory Factor Analysis

Table 1

Constructs	Items	Loadings	Alpha	CR	AVE
Agreeableness	AGR1	0.752	0.845	0.890	0.621
	AGR2	0.876			
	AGR3	0.778			
	AGR4	0.852			
	AGR5	0.664			
Conscientiousness	CON1	0.913	0.789	0.905	0.826
	CON2	0.904			
Entrepreneurial Behavior	EB1	0.718	0.895	0.916	0.578
	EB2	0.712			
	EB3	0.699			
	EB4	0.701			
	EB5	0.753			
	EB6	0.834			
	EB7	0.832			
	EB8	0.815			
Emotional Stability	ES1	0.837	0.847	0.898	0.688
	ES2	0.749			
	ES3	0.842			
	ES4	0.885			
Extraversion	EXT1	0.933	0.816	0.890	0.732
	EXT2	0.876			
	EXT3	0.748			
Openness to Experience	OP1	0.804	0.773	0.857	0.604
	OP2	0.821			
	OP3	0.581			
	OP4	0.872			
Entrepreneurial Self-Efficacy	SE1	0.886	0.873	0.915	0.732
	SE2	0.689			
	SE3	0.904			
	SE4	0.924			

Confirmatory factor analysis was performed to assess the convergent and discriminant validity of the scale and is presented in Table 1 above. Convergent validity has three basic parameter: CR, AVE and factor loadings. The values for the factor loadings must be greater than 0.5. The

optimistic value for factor loadings is 0.7. As per Table 1 above, all the factor loading values for all the items are more than 0.5.

Value for the CR and AVE should be greater than 0.8 and 0.5. As per Table 1 the values for the variables: agreeableness, conscientiousness, entrepreneurial behavior, emotional stability, extraversion, openness to experience and entrepreneurial self-efficacy are 0.890, 0.905, 0.916, 0.898, 0.890, 0.857 and 0.915 respectively. The values of AVE for all the variables: agreeableness, conscientiousness, entrepreneurial behavior, emotional stability, extraversion, openness to experience and entrepreneurial self-efficacy are 0.621, 0.826, 0.578, 0.688, 0.732, 0.604 and 0.732 respectively. All the values for the CR, AVE and factor loadings have satisfied the criteria which establishes the convergent validity of the scale and allows progress for the next analysis.

Discriminant Validity

Fornell & Larckers Criterion

Table 2

	AGR	CON	EB	ES	EXT	OP	SE
AGR	0.788						
CON	0.425	0.909					
EB	0.621	0.619	0.76				
ES	0.534	0.718	0.643	0.830			
EXT	0.442	0.537	0.734	0.500	0.856		
OP	0.504	0.613	0.645	0.629	0.552	0.777	
SE	0.699	0.502	0.746	0.523	0.565	0.541	0.856

Discriminant validity was assessed by using the Fornell & Larckers method. As per this method the values of correlation of AVE square root of particular variable must be greater than all other variables. As per Table 2 above all the values for the AVE square root are greater thus it establishes the discriminant validity.

Cross Loadings

Table 3

	AGR	CON	EB	ES	EXT	OP	SE
AGR1	0.752	0.430	0.589	0.48	0.433	0.388	0.649
AGR2	0.876	0.318	0.430	0.415	0.318	0.420	0.490
AGR3	0.778	0.350	0.465	0.456	0.327	0.416	0.490
AGR4	0.852	0.273	0.398	0.38	0.289	0.375	0.468
AGR5	0.664	0.255	0.492	0.335	0.321	0.363	0.578

CON1	0.386	0.913	0.583	0.639	0.521	0.577	0.457
CON2	0.386	0.904	0.541	0.666	0.454	0.535	0.457
EB1	0.473	0.427	0.718	0.428	0.468	0.391	0.536
EB2	0.381	0.455	0.712	0.463	0.453	0.398	0.479
EB3	0.524	0.533	0.699	0.533	0.388	0.577	0.631
EB4	0.508	0.488	0.701	0.543	0.373	0.508	0.585
EB5	0.453	0.465	0.753	0.478	0.651	0.445	0.515
EB6	0.486	0.436	0.834	0.452	0.737	0.490	0.580
EB7	0.451	0.439	0.832	0.443	0.706	0.514	0.551
EB8	0.471	0.496	0.815	0.535	0.685	0.551	0.615
ES1	0.433	0.538	0.500	0.837	0.395	0.543	0.372
ES2	0.404	0.741	0.530	0.749	0.488	0.538	0.482
ES3	0.423	0.516	0.533	0.842	0.351	0.489	0.387
ES4	0.505	0.569	0.560	0.885	0.412	0.514	0.476
EXT1	0.433	0.514	0.712	0.471	0.933	0.523	0.576
EXT2	0.398	0.506	0.690	0.496	0.876	0.545	0.485
EXT3	0.281	0.331	0.440	0.285	0.748	0.313	0.356
OP1	0.316	0.435	0.408	0.472	0.323	0.804	0.325
OP2	0.400	0.459	0.472	0.503	0.413	0.821	0.319
OP3	0.335	0.295	0.45	0.349	0.432	0.581	0.484
OP4	0.472	0.655	0.614	0.594	0.496	0.872	0.494
SE1	0.668	0.361	0.613	0.419	0.376	0.488	0.886
SE2	0.455	0.502	0.693	0.540	0.680	0.453	0.689
SE3	0.598	0.425	0.604	0.393	0.420	0.421	0.904
SE4	0.657	0.416	0.619	0.418	0.433	0.473	0.924

Table 3 above depicts the values for cross loadings. The values for all the variables in their respective columns are greater than 0.7 which is the parameter for the cross loadings.

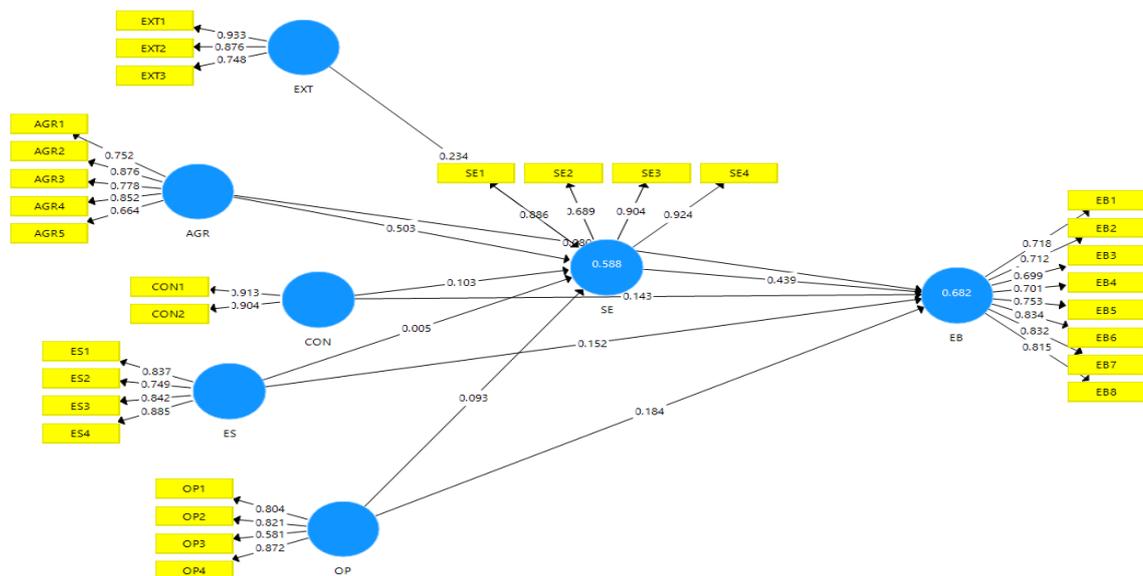
Heterotrait-Monotrait Correlation Ratio

Table 4

	AGR	CON	EB	ES	EXT	OP	SE
AGR							
CON	0.507						
EB	0.690	0.733					
ES	0.620	0.873	0.731				
EXT	0.507	0.656	0.842	0.584			
OP	0.607	0.765	0.750	0.769	0.663		
SE	0.793	0.603	0.835	0.600	0.650	0.639	

Discriminant validity has also been assessed by using the parameters of HTMT. This is a new assessment technique in which all the correlational values between the variables should be less than 0.85. As per Table 4 above all the values are in acceptable range which establishes the discriminant validity. Figure 3 below shows the output of confirmatory factor analysis:

Figure 3



Structural Equation Modelling

Table 4

Relationships	Beta	SD	t value	p value
AGR -> EB	0.080	0.046	1.721	p<0.05
AGR -> SE	0.503	0.038	13.228	p<0.05
CON -> EB	0.143	0.043	3.293	p<0.05
CON -> SE	0.103	0.046	2.224	p<0.05
ES -> EB	0.152	0.047	3.225	p<0.05
ES -> SE	0.005	0.055	0.088	p>0.05
EXT -> SE	0.234	0.043	5.383	p<0.05
OP -> EB	0.184	0.049	3.788	p<0.05
OP -> SE	0.093	0.046	2.001	p<0.05
SE -> EB	0.439	0.045	9.705	p<0.05

Table 4 above shows the results of the direct relationships between the variables. The person who can accept the things around him has been proved to be more entrepreneurship oriented as compared to the person with no flexibility in his or her personality. In this regard the study results show a positive link between agreeableness and entrepreneurial behavior; which is valued at 0.080. A minor change will happen in the case of increase in agreeableness personality factor of an individual. In addition, conscientiousness was found to be linked with entrepreneurial behaviors which is valued at 0.143. This asserts that a minor change will bring about a slight change in entrepreneurial behavior. Additionally, emotional stability is also found to be associated with entrepreneurial behaviors and the association is valued at 0.152. Openness to experience and extraversion are both found to be related to entrepreneurial behavior which is valued at 0.184.

Furthermore, the results also highlighted that the personality traits: agreeableness, conscientiousness, emotional stability, extraversion and openness to experience are associated with self-efficacy valued at 0.503, 0.103, 0.005, 0.234 and 0.093 respectively. In addition, the results also showed that there is a positive link between self-efficacy and entrepreneurial behavior valued at 0.439. All the relationships are positive and significant. Therefore, all the direct hypotheses are accepted.

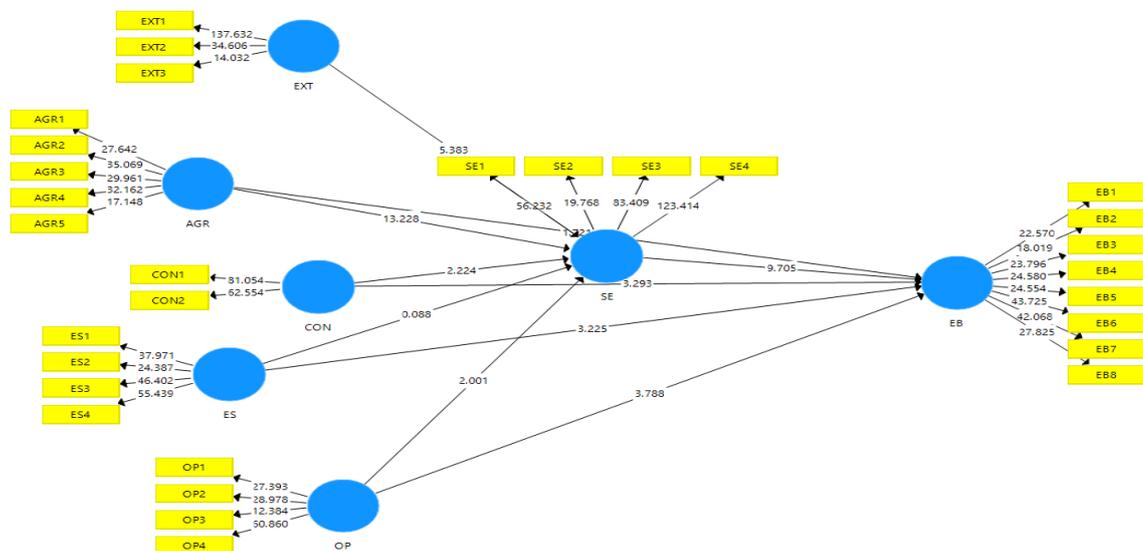
Specific Indirect Effects

Table 5

Relationships	Beta	SD	t value	p value
AGR -> SE -> EB	0.221	0.028	7.927	p<0.05
CON -> SE -> EB	0.045	0.020	2.245	p<0.05
ES -> SE -> EB	0.002	0.024	0.088	p>0.05
EXT -> SE -> EB	0.103	0.025	4.038	p<0.05
OP -> SE -> EB	0.041	0.020	1.993	p<0.05

Table 5 above shows the results for the mediation of SE between IVs and DV. Self-efficacy was found to be a significant mediator between personality traits and entrepreneurial behavior. Self-efficacy was found to be strongest mediator in the relationship between agreeableness and entrepreneurship behavior. This means that a person with a flexible personality has more tendency to get involved in entrepreneurial behaviors. Similarly, self-efficacy was also found to play a significant mediation role between extraversion and entrepreneurial behavior. Overall all the hypothesis are significant and accepted. Figure 4 below shows the output of the structural equation modelling for the research model:

Figure 4



Discussion, limitations and implications for future research

Agriculture plays an important role in society and there is a need to develop the current agriculture system to create greater efficiency and effectiveness in agriculture extensions organizations and their workforce. Personality traits play an important role in developing the agriculture extensions workers. The purpose of the current study was to examine the role of the



big five personality traits model on adoption of agriculture extensions and to examine entrepreneurial self-efficacy role as mediation. The entire set of hypotheses are accepted which shows that personality traits play an important role in adoption of agriculture extensions. Previous studies showed that there must be a positive relationship among the big five personality traits and adoption of new technology and organization growth (Costa & McCrae, 1992; Grehan et al., 2011; Luvanda, 2015; Naami et al., 2014; Ngongo, 2016). The agreeableness and conscientiousness traits have a stronger effect on agriculture extensions compared to the other personality traits. The current study used convenient sampling technique and future studies must use other sampling techniques to provide more reliable results. The nature of this study is cross sectional and a longitudinal study must be adopted in future to gain more reliable results and collect data twice from the same respondents. Further, there must be another mediator investigation on the relationship such as mindfulness in the future.

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