Technology Acceptance Model in an Environmental and Organizational Context (evidence from Kazakhstan)

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SUMMARY

The aim of this paper is to investigate the impact of the environmental and organizational moderators on farmers' e-commerce adoption behaviour. Data were collected from 384 wheat farmers in Kazakhstan. Descriptive analysis and multiple group analysis findings revealed that environmental (i.e. government) and organizational moderators had an insignificant effect on the relationship of the dependent variables (between behavioural intention and usage behaviour). However, there is a positive impact of the environmental (i.e. government) and organizational moderators on the relationship between the independent variables (Perceived Usefulness, Perceived Ease of Use, Social Influence, Facilititating Conditions, Compatibility) and dependent variable (behavioural intention).

Keywords: Government support; organizational support; moderator; farmers
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INTRODUCTION

The collapse of communism in the Soviet Union and Eastern Europe in the early 1990s was one of the most transformative events in economic history. After abandoning a centrally planned economic system, Kazakhstan has gone through a difficult path of reformations of the main sectors of economy, including agriculture. Nowadays, agriculture in Kazakhstan has overcome recovering from the major production decline that occurred during the phase of 1990s, which was at the phase of transferring the management mechanisms from the centrally planned economy to market economy. Since 1999, agricultural production and other related areas have been developing at a steady pace across all regions of the country. Adaptation of commodity producers to the new economic conditions, the development of other sectors of the national economy, and the increase in household income have all led to higher demand for the country's agricultural products and services and to the development of state-led agricultural policies. Kazakhstan traditionally has been an agroindustrial country for centuries and the development of virgin lands in the 1960s turned it into one of the largest producers of wheat and other types of grain in the world (Sikos & Meirmanova, 2020). Within the framework of digitalization, by 2021 at least 20 digital farms, which operate without human intervention, and 4000 advanced farms, partially automated farms, that use fuel consumption sensors, GPS trackers, meteorological stations, an electronic weed map and software for managing business processes were created, full automation of processes and public services were provided throughout the country (AKORDA, 2018). Digitalization measures have focused on farms and simplifying their activities. E-commerce is the activity of electronically buying or selling of products, and its integration is one of the most important parts of the digitalization programme in the agricultural policy of Kazakhstan. Experts claim that the development of e-commerce in agriculture helps farmers to escape the shackles of the supply

chain, particularly in selling unprocessed agricultural products, helping them to arrange the agricultural production structure and meeting the demands of supply-side reform. As a result, rural e-commerce is emerging as a new hub for the development of Kazakhstan's economy. This study aims to create a technology acceptance model that can demonstrate how environmental (i.e. government) and organizational moderators can have an impact on the farmers' e-commerce adoption behaviour in wheat growing farms of Kazakhstan. This contributes to the aim of accelerating the usage of e-commerce tools by farmers in farming operations and demonstrating to the consumers how the adoption of technologies provides a certain economic and social effect, creating the material prerequisites for effective management and production development policies.

LITERATURE REVIEW

Generally, there are some quantitative and qualitative studies on the adoption of information and communication technologies (ICT) by farmers. At the beginning farmers were frightened by the role of ICT; however, many farmers have overcome their skepticism towards ICT and related issues and have became at ease with ICT due to government policy frameworks were presented in the form of education and funded technology purchases (Machfud & Kartiwi, 2013). There is much hopefulness about the growth of e-commerce in the agricultural sector around the world. For instance, there is more optimism about German farmers' intentions to use e-commerce for business purposes in the future. Around 70% of German farmers are willing to sell and purchase electronically (RENTENBANK, 2015). E-Choupal, a conglomerate in India, encourages Indian farmers to create a direct marketing channel, and eliminate wasteful intermediation, thus reducing transaction costs and making logistics more efficient (Goyal, 2010).

Moreover, the literature shows some evidence that the adoption of e-commerce by farmers is based on the composition of rational, social deterministic, and behavioural reasons. From a rational point of approach, e-commerce incentives are rooted in business that leads to farmers' adoption of e-commerce strategies. From a social deterministic point of view, farmers from small and medium-sized farms rely on social reasons for making decisions on adoption of e-commerce strategies. Social determinism includes social constructs that play a substantial role in their decision-making. From the theory of behaviourism point of view, farmers' decisions on acceptance of e-commerce tools related to their environment are based on farmers' knowledge and experiences from farming. Researches show that e-commerce penetration in small and medium-sized farms was rare due to farmers' irrational reasons such as being too busy or feelings of intimidation (Machfud & Kartiwi, 2013). According to their findings, behavioural factors are the main determinants in defining farmers' perceptions on acceptance of e-commerce tools that can be assessed through different technology adoption models or theories.

Technology Acceptance Model, Theory of Planned Behaviour, Theory of Reasoned Action, Technology Acceptance Model, Unified Theory of Acceptance and Use of Technology are well-known technology adoption models that are being applied in different areas, specifically in information systems fields. Technology Acceptance Model (TAM) provides a theoretical basis to understand and evaluate the acceptance of new technologies by users, allowing the development and implementation of better systems. The model has been tested in many investigations, in various contexts and has proven to be a reliable tool to understand technology acceptance. TAM appears to be the most widely applied model/theory in technology acceptance studies of online commerce. Fedorko et al. (2018) examined methodically the effect of individual's experience factors on e-commerce site search and navigation through reconstructing TAM with other determinants. Fayad and Paper (2015) extended TAM by adding four exogenous variables, such as "process satisfaction", "outcome satisfaction", "expectations" and "e-commerce usage" in order to understand online consumer behaviour. Renko and Popović (2015) applied TAM in order to investigate electronic retailing adoption among Croatian consumers.

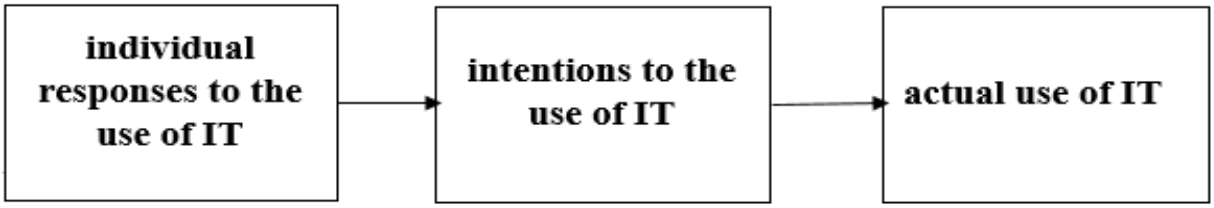
Integration of moderators into the technology acceptance models or theories leads to modification of the strength of the relation between an independent and a dependent variable (Imai et al., 2010). Kosar and Mehdi Raza Naqvi (2015) determined a moderator as the "variable that affects the direction and/or strength of the relation between independent or predictor variable and dependent criterion variable". Moderators can be applied within four well-known contexts: Technology Context, Individual Context, Organizational Context, Cultural Context (Han, 2003). Researchers should take into consideration these four contexts in order to explain the adoption or non-adoption of the certain technologies by individuals in a given environment and set of conditions. The impact of the contexts on behavioural beliefs will provide a solid basis on technology acceptance models. TAM does not include any moderators; however, incorporating environmental (i.e. government) and organizational factors as moderating variables into the

model might lead to a better prediction and explanation of behavioural beliefs towards e-commerce tools usage. There are a limited number of empirical studies where organizational and environmental factors have been applied. An analysis of the moderators might reveal where to concentrate effort and resources to implement technology adoption model by farmers appropriately.

The environmental (i.e. government) factor as a moderating variable was defined by Calantone et al. (2006) as "the extent to which government promotes facilitating conditions in order to accept new technologies". In their study, the organizational factor as a moderating variable has a positive impact on the behavioural beliefs with positive correlations. The authors incorporated environmental factors as moderating variables because: (1) Environmental changes (opportunities and threats) encourage businesses to operate efficiently and optimize their processes; (2) environmental forces can improve the organization in its services and products; (3) the environmental forces can cause desirable yields and improve their performance (Salavou et al., 2004; Damanpour et al., 2009). Organizational factor as a moderating variable strengthens other factors in order to optimize business performance (Deshpande & Farley, 2004). Leonard-Barton (1987) states that predicting technology acceptance behaviour will not be efficient without observing management support at a hierarchal level in an organization. Based on the abovementioned literature, I incorporated management moderators at a high level (i.e. government support (GS)) and at a low level (i.e. organizational support (OS)) into the original TAM.

CONCEPTUAL FRAMEWORK AND HYPOTHESES

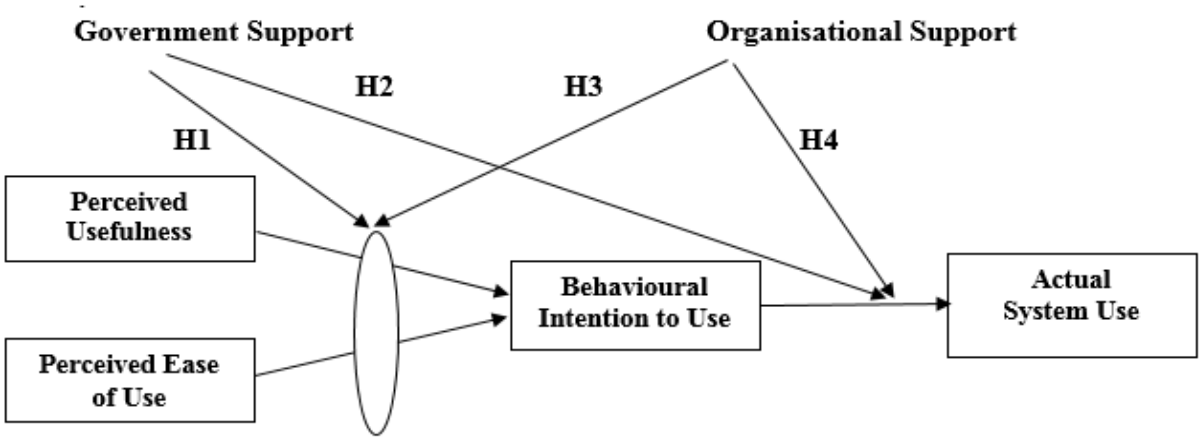
This research is a cross-sectional study due to the data being collected over a short period of time. Behavioural intention is one of the main dependent variables in order to predict actual usage of e-commerce tools in the future. Venkatesh et al. (2003) suggest that individual responses to use the information technology may influence the intentions to use the information technology and consequently, intentions to use the information technology may influence the actual use of the information technology, as shown in Figure 1.



Source: Venkatesh et al. (2003)

Figure 1. Basic concept underlying user acceptance models

The current article attempts to conceptualize TAM with the influence of management moderators at a high level (i.e. government support (GS)) and at a low level (i.e. organizational support (OS)) on the relationship between independent and dependent variables. Government support (GS) and organizational support (OS) moderators are expected to moderate the impact of exogenous variables on "behavioural intention" and moderate the impact of "behavioural intention" on "actual usage".



Source: Venkatesh et al. (2003)

Figure 2. The incorporation of moderators into TAM

As shown in Figure 2, the moderating hypotheses were established in the following way:

H1: The influence of exogenous variables (Perceived Usefulness, Perceived Ease of Use, Social Influence, Facilitating Conditions, Compatibility) towards behavioural intention is moderated by the Government Support moderator.

H2: The influence of behavioural intention on actual usage is moderated by the Government Support moderator.

H3: The influence of exogenous variables (Perceived Usefulness, Perceived Ease of Use, Social Inluence, Facilitating Conditions, Compatibility) towards behavioural intention is moderated by the Organizational Support moderator.

H4: The influence of behavioural intention on actual usage is moderated by the Organizational Support moderator.

DATA AND METHODS

The dataset used in the recent paper is same as the dataset that was used in an earlier paper of Meirmanova (2020), but the aim and the purpose of this paper is different. The researcher used multi-stage random sampling design in order to select the sample at every stage randomly. The population size is individuals (farmers) selected from wheat farms. There are approximately 190000 farms in Kazakhstan, of which 14813 grow mainly wheat. Krejcie and Morgan (1970) state that if the given population (N)=15000 then sample is required to be S=375. Therefore, the sample size of the present study is S=384 individuals (farmers) who were selected by their experience in using e-commerce tools and were considered as the representatives of the population for generalisability. The email questionnaires were distributed to farms which are scattered within Kazakhstan. The cutting edge technologies, such as Gmail, Whatsapp, Messenger were used to collect information from farmers in a short period of time due to Kazakhstan is the ninth largest territory in the world, it would be costly to distribute questionnaires through conventional type of mail services, e.g. letters. The questionnaires were distributed to 568 respondents on wheat farms of Kazakhstan by e-mail, where 452 questionnaires were received back with a response rate of 79% and only 384 valid questionnaires were processed for analysis. The self-administered survey questionnaire is adopted as the primary source of data collection with some supporting e-mailed surveys. Zikmund (2003) and Sekaran (2000) defined the rationales behind selecting the self-administered questionnaire method for data collection, which are that it (1) "embraces whole population and a large territory" – the targeted population are farmers in wheat farms in Kazakhstan, which are spread geographically across fifteen provinces (oblasts) of Kazakhstan. Therefore, to reach every farmer individually for an interview seems to be impractical; (2) "inexpensive and time-saving: much time and money can be saved in comparison with the interview method due to the researcher does not need to sit with the respondent and fill the data in by him/herself" - in order to save additional time due to the delay in the postal service, and the electronic format of the questionnaire is included for distribution due to the expensive costs of printing and travelling; (3) "respondent's convenience: unlike the interview method, with the self-administrated survey method (i.e., mail or e-mail) the respondent is free to think about their replies and complete it whenever a convenient time is available to him/her" - respondents

will not be biased by the researcher's opinion, or by time hassle requirements. The survey was conducted during June-August, 2018. A total of 384 valid questionnaires were obtained for further analysis after the researcher discarded incomplete questionnaires with missing values. The questionnaire was designed in order to avoid confusing, double-barrelled questions and to stimulate the farmers to respond in a short time and with little effort (Kothari, 2004). The developed questions used to measure the research model are based mostly on items used in measurements by Venkatesh et al. (2003) and Venkatesh and Davis (2000) (see Appendix A). Sekaran (2000) classified two main groups of scales, i.e. rating and ranking scales in order to measure individual's behaviour. As a scaling method, the items were chosen for different determinants in the present study (Likert, 1932). Likert scales were used, including seven classified answers, ranging from "strongly disagree" to "strongly agree".

METHODOLOGY

Multiple group analysis was applied in the current research. Two groups of hypotheses are tested by using AMOS' multiple group analysis in order to examine the influence of moderators on the relationship of constructs towards usage behaviour and behavioural intention. The objectives of comparing between or among groups are to investigate whether there are any significant differences between or among them.

Government support was split into two groups: low government support and high government support. There are 204 farmers who perceive that government support is low in e-commerce usage, while 180 farmers perceive that government support is high in e-commerce usage. The measurement model for the low government support group is [χ^2=168.42; df=129, χ^2/df=1.3055; GFI =.952; AGFI=.923; CFI=.987; RMSEA=.027; TLI=.983] and for the high government support group is [χ^2=201.57; df=148, χ^2/df=1.3620; GFI =.948; AGFI=.918; CFI=.985; RMSEA=.025; TLI=.981], thus indicating that the model fits the data very well. As shown in Table 1, Cronbach's alpha values were higher than 0.7 and consequently all factors have adequate reliability. The convergent validity is evaluated by using the average variance extracted (AVE). The discriminant validity is supported by maximum square variance (MSV). AVE for all constructs are higher than 0.5 and MSV for all constructs are less than AVE, thus indicating that the convergent and discriminant validities are considered satisfactory.

Table 1
Constructs' validity of low and high government support

	low government support			**high government support**		
Constructs	**Cronbach's α**	**AVE**	**MSV**	**Cronbach's α**	**AVE**	**MSV**
PU (perceived usefulness)	0.856	0.721	0.317	0.904	0.747	0.689
PEOU (perceived ease of use)	0.823	0.758	0.385	0.887	0.652	0.364
SI (social influence)	0.759	0.663	0.425	0.805	0.587	0.325
FC (facilitating conditions)	0.765	0.515	0.352	0.739	0.564	0.251
COMP (compatibility)	0.847	0.561	0.331	0.875	0.698	0.482
BI (behaviour intention)	0.929	0.528	0.282	0.729	0.574	0.394
BU (behaviour usage)	0.757	0.506	0.354	0.786	0.628	0.486

Source: Own calculations

There is a moderating effect of Government Support on the relationship between exogenous variables (PU, PEOU, SI, FC, COMP) and usage behaviour, while no moderating effect of Government Support was found on the relationship between usage behaviour and behavioural intention, as shown in Table 2, thus supporting Hypothesis 1 and rejecting Hypothesis 2.

Table 2
Summary of the moderating effect of Government Support

Hypotheses	Low GS		High GS		Z-score	Results
	R^2	Estimate	R^2	Estimate		
FARMTASK <---PU	42.1%	.254	48.1%	.115	-1.758*	Accepted
FARMTASK <---PEOU		.087		.258	1.694*	Accepted
FARMTASK <---SI		.224		.118	-1.627*	Accepted
FARMTASK <---FC		.312		.164	-2.043**	Accepted
FARMTASK <---COMP		.216		.112	-2.481**	Accepted
BIFARMTASK <---FARMTASK	55.7%	.248	51.3%	.305	0.569	Rejected
Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10						

Source: Own calculations

As shown in Table 3, Cronbach's alpha values were higher than 0.7 and consequently all factors have adequate reliability. AVE for all constructs are higher than 0.5 and MSV for all constructs are less than AVE, thus indicating the convergent and discriminant validities are considered satisfactory.

Table 3
Constructs' validity of low and high organizational support

	low organizational support			high organizational support		
Constructs	**Cronbach's α**	**AVE**	**MSV**	**Cronbach's α**	**AVE**	**MSV**
PU (perceived usefulness)	0.854	0.684	0.249	0.914	0.784	0.291
PEOU (perceived ease of use)	0.916	0.662	0.337	0.898	0.645	0.276
SI (social influence)	0.925	0.697	0.258	0.873	0.627	0.261
FC (facilitating conditions)	0.861	0.624	0.173	0.782	0.561	0.024
COMP (compatibility)	0.834	0.573	0.294	0.861	0.552	0.149
BI (behaviour intention)	0.759	0.724	0.268	0.734	0.637	0.308
BU (behaviour usage)	0.847	0.564	0.343	0.872	0.591	0.237

Source: Own calculations

Organizational support was split into two groups: low organizational support and high organizational support. There are 175 farmers who perceive that organizational support is low in e-commerce usage, while 209 farmers perceive that organizational support is high in e-commerce usage. There is a moderating effect of Organizational Support on the relationship between exogenous variables (PU, PEOU, FC, COMP) and usage behaviour, while no moderating effect of Organizational Support was

identified on the relationship between usage behaviour and behavioural intention, and no moderating effect of Organizational Support was found on the relationship between social influence (SI) and usage behaviour, as shown in Table 4, thus partially supporting Hypothesis 3 and rejecting Hypothesis 4.

Table 4
Summary of the moderating effect of Organizational Support

Hypotheses	**Low OS**		**High OS**		**Z-score**	**Results**
	R^2	**Estimate**	**R^2**	**Estimate**		
FARMTASK <---PU	44.8%	.275	39.2%	.114	-2.185**	Accepted
FARMTASK <---PEOU		.164		.045	-1.946**	Accepted
FARMTASK <---SI		.178		.152	-0.172	Rejected
FARMTASK <---FC		.234		.426	2.281**	Accepted
FARMTASK <---COMP		.118		.039	-2.374**	Accepted
BIFARMTASK <---FARMTASK	55.4%	.259	51.3%	.236	-0.581	Rejected
Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10						

Source: Own calculations

CONCLUSIONS

Table 5 summarizes the results of the moderating hypotheses. It has been found that the impact of government support and organizational support partially fitted the proposed model. These moderators significantly moderated the key relationships (such as the influence of the exogenous variables on usage behaviour). However, organizational support was insignificant in the influence of social influence (SI) on usage behaviour in farming. In addition government support and organizational support were insignificant in the influence of usage variable on the behavioural variable.

Table 5
Summary of Moderating Hypotheses

Ho	**Exogenous Latent Constructs**	**Endogenous Latent Constructs**	**Moderator**	**Hypothesis results**	**Explanation**
H1	Perceived Usefulness, Perceived Ease of Use, Social Influence, Facilitating Conditions, Compatibility	FARMTASK	Government Support	Accepted	Government Support significantly moderated the influence of predictors

H3	Perceived Usefulness, Perceived Ease of Use, Social Influence, Facilitating Conditions, Compatibility	FARMTASK	Organizational Support	Accepted (Partially rejected)	Organizational Support significantly moderated the influence of predictors
Ho	**Usage variable**	**Behavioural variable**	**Moderator**	**Hypothesis results**	**Explanation**
H2	FARMTASK	BIFARMTASK	Government Support	Rejected	Government Support insignificantly moderated the relationships
H4	FARMTASK	BIFARMTASK	Organizational Support	Rejected	Organizational Support insignificantly moderated the relationships

Source: Own calculations

From the theoretical point of view, the developed model provides a better understanding of the relationships between the core constructs and usage behaviour, as well as between the usage behaviour and behavioural intention; both of these relationships were moderated by Organizational support and Government support. The empirical findings derived from examining the key predictors by perceptions of high-level and low-level management support moderators within the one social group (e.g. farmers of wheat farms). The examination within one social group and the assessment of key predictors at management level help to extend behaviour acceptance research to a wide range of workplaces at the micro-level context. The integration of management level factors such as Organizational support and Government support between the independent variables and farmers' behavioural intention and farmers' usage behaviour in e-commerce applications usage.

The main contribution of the current study is the examination of the influence of moderators (perceived high-level and low-level management support) through Multiple Group Analysis (MGA) in order to analyze moderation effects. Previously there were few studies using MGA. Organizational characteristics significantly influenced e-commerce adoption. The results of the current research indicate that it would be a good idea to promote e-commerce technologies usage at organizational level and at government level. The second practical contribution is that farmers' perceptions of and attitudes towards the acceptance of new technology acceptance may play the the role of indicators in creating technology adoption frameworks by research institutions.

This study suggests recommendation for future research related to the adoption of e- commerce technologies and applications. The first suggestion is that the individual context, technological context, and cultural context dimensions should be considered in e-commerce technologies adoption, since the model of the present study was moderated in the organizational context dimensions.

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Appendix A

Section A: Perceived Usefulness and Perceived Ease of Use toward e-commerce usage: please rate the extent to which you agree with each statement (circle only one option)

1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree

4= Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree

A1. PERCEIVED USEFULNESS about the e-commerce usage.

1. Using e-commerce enables me to accomplish tasks more quickly: *1 2 3 4 5 6 7*
2. Using e-commerce improves the quality of my work: *1 2 3 4 5 6 7*
3. Using e-commerce makes it easier to do my work: *1 2 3 4 5 6 7*
4. I find e-commerce useful in my work: *1 2 3 4 5 6 7*
5. Using e-commerce gives me greater control over my work: *1 2 3 4 5 6 7*

A2. PERCEIVED EASES OF USE about the e-commerce usage.

1. Learning to use e-commerce is easy for me: *1 2 3 4 5 6 7*
2. I find it easy to use e-commerce to do what I want to do: *1 2 3 4 5 6 7*
3. I find it easy for me to become skilled in using e-commerce: *1 2 3 4 5 6 7*
4. I find e-commerce easy to use: *1 2 3 4 5 6 7*

Section B: Social Influence, Facilitating Conditions and Compatibility toward e-commerce usage: please rate the extent to which you agree with each statement (circle only one option)

1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree

4= Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree

B1. SOCIAL INFLUENCE about e-commerce usage.

1. Management of my organization thinks that I should use e-commerce: *1 2 3 4 5 6 7*
2. The opinion of my organizational management is important to me: *1 2 3 4 5 6 7*
3. Government management thinks that I should use e-commerce: *1 2 3 4 5 6 7*
4. The opinion of government management is important to me: *1 2 3 4 5 6 7*

B2. FACILITATING CONDITIONS about e-commerce usage.

1. The resources necessary (e.g. new computer hardware and software, internet etc.) are available for me to use e-commerce effectively: *1 2 3 4 5 6 7*
2. I can access e-commerce very quickly within my farm: *1 2 3 4 5 6 7*
3. Guidance is available to me to use e-commerce effectively: *1 2 3 4 5 6 7*
4. A specific person (or group) is available for assistance with e-commerce usage difficulties: *1 2 3 4 5 6 7*

B3. COMPATIBILITY about e-commerce usage.

1. Using e-commerce is compatible with all aspects of my work: *1 2 3 4 5 6 7*
2. I think that using e-commerce fits well with the way I like to work: *1 2 3 4 5 6 7*
3. Using e-commerce fits into my work style: *1 2 3 4 5 6 7*

Section C: individual's *BEHAVIOUR USAGE* and *BEHAVIOUR INTENTION* toward e-commerce usage: please rate the extent to which you agree with each statement (circle only one option)

1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree

4= Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree

C1. BEHAVIOUR INTENTION (BI)

1. I intend to use e-commerce in my farming tasks: *1 2 3 4 5 6 7*
2. I intend to use e-commerce in my non-farming tasks: *1 2 3 4 5 6 7*
3. If I had access to e-commerce, I predict that I would use it:
1 2 3 4 5 6 7
4. Whenever it will be possible for me, I plan to use e-commerce in my farming tasks: *1 2 3 4 5 6 7*

C2. BEHAVIOUR USAGE (BU)

1. I use e-commerce in my farming tasks: *1 2 3 4 5 6 7*

2. I use e-commerce in my non-farming tasks: *1 2 3 4 5 6 7*
3. If I had access to e-commerce, I would use it: *1 2 3 4 5 6 7*
4. Whenever it is possible for me, I use e-commerce in my farming tasks:
1 2 3 4 5 6 7

Section D: MANAGEMENT SUPPORT: please rate the extent to which you agree with each statement (circle only one option)

1= Strongly Disagree 2= Quite Disagree 3= Slightly Disagree
4= Neutral 5= Slightly Agree 6= Quite Agree 7= Strongly Agree

D1. Government Support (GS)
1. The government is committed to a vision of using e-commerce in farms: *1 2 3 4 5 6 7*
2. The government strongly encourages the use of e-commerce for farming purposes: *1 2 3 4 5 6 7*
3. The government strongly does not encourage the use of e-commerce for farming purposes: *1 2 3 4 5 6 7*
4. The government recognize farmers' efforts in using e-commerce for farming purposes: *1 2 3 4 5 6 7*
5. The government does not recognize farmer's efforts in using e-commerce for farming purposes: *1 2 3 4 5 6 7*

D2. Organizational Support (OS)
1. My organization is committed to a vision of using e-commerce in farming tasks: *1 2 3 4 5 6 7*
2. My organization strongly encourages the use of e-commerce for farming purposes: *1 2 3 4 5 6 7*
3. My organization does not encourage the use of e-commerce for farming purposes: *1 2 3 4 5 6 7*
4. My organization recognize farmers' efforts in using e-commerce for farming purposes: *1 2 3 4 5 6 7*
5. My organization does not recognize farmers' efforts in using e-commerce for farming purposes: *1 2 3 4 5 6 7*