NEPALESE SFBS TRUST IN INFORMATION TECHNOLOGY

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ABSTRACT

This research study seeks to identify Nepalese Small Family Business (SFBs) owner/managers trust in information technology (IT). We use seven (7) attributes to determine trust. We analyze the attributes using descriptive analysis of SFBs in the Lumbini zone of Nepal. This study uses the results from a survey of 210 SFBs owner/manager. Instrument reliability was measured by Cronbach's alpha. The result indicates that Nepalese SFBs have trust in IT completely; the reason being, the result of statistical analysis on the data revealed that out of the seven attributes; 27 percent SFBs owner/managers strongly agreed that Email is helpful for business communication purpose; 26.7 percent were strongly agreed that they were happy with the technology; 25.7 strongly agreed that they resolve IT problem themselves of with help. 23.3 strongly agreed that IT can boost their business growth. Very few; i.e.10 percent of them strongly disagreed on use of phone/internet bill payment, and 6.7 percent are afraid of using IT.

Keywords: Information Technology; Adoption; Trust; Small Family Business; Nepal

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I. INTRODUCTION

A large and growing body of research has examined the role of trust in business. Much of this research has looked at the nature of consumer trust placed in business supporting e-commerce (Kandel and Hota, 2012, Goudarzi et al., 2013; Liu and Datta, 2011; McKnight and Chervany, 2000). Trust in small business has also been explored (Parida, V., Westerberg, M., & Frishammar, J. 2012). What has been generally absent from these investigations, however, is a focus on the small family business and the information technology (IT) trust attributes. Further, specific to Nepalese small family businesses (SFBs) is yet to be researched. Therefore, this study objective of this research study is to identify Nepalese Small Family Business (SFBs) owner/managers trust attributes and perception in information technology (IT). We believe; country like Nepal, business is a social activity and IT is a tool which is an important part of the business progress. Distrust of what businesses do with information technology is an issue throughout the world, but where there may be good justification for such distrust, it could become a serious obstacle to IT growth and business benefits.

II. LITERATURE REVIEW

The concept of trust has been investigated widely across the spectrum of human relationships in many disciplines (Mayer et.al. 1995; McKnight and Chervany 2002; Venkatesh and Davis, 2000). According to Mayer, Davis and Schoorman, (1995); whether the object of trust is another person or an information technology, one trusts the other to the extent that one chooses to depend on the other and reconciles away fears by being willing to become vulnerable to the other without controlling the other. Formally, the overall trust concept means secure willingness to depend on a trustee because of that trustee's perceived characteristics (Rousseau et al., 1998). Researcher Rousseau et al., (1998) suggests three main types of applicable trust concepts: 1. trusting beliefs, 2. trusting intentions, and 3. trusting behaviors. Author, Floridi, (2008); says that the problematic nature of trust in technology becomes evident with the dissemination of information technologies (IT) and the subsequent information revolution, with which artefacts cease to be used mainly to perform physical and fatiguing tasks, and begin to be deployed to execute also intellectual works. Table [1] below; shows adaptation of McKnight et al.'s (2011) distinctions between trust in technology and trust in people.

Table 1: McKnight et al.'s (2011) distinction between trust in technology and trust in people

		Trust in people	Trust in technology
Contextual condition		Existence of risk or uncertainty, dependence on other people for achievement of outcomes	Existence of risk or uncertainty, dependence on technology for achievement of outcomes
Object of dependence		People (moral agency, volitional and non-volitional factors)	Technology (amoral and non-volitional factors only)
Nature of trustor's expectations:	Ability	The person possesses the competence to deliver the required outcome	The technology possesses the needed functionality to achieve the required outcome.
	Benevolence	The person demonstrates the will and volition to act caringly and considerately towards the trustor.	The technology is designed to serve the needs of the users.
	Integrity	The person consistently acts in a manner that is acceptable to the trustor.	The technology functions reliably and predictably without failing.

This study support McKnight et al.'s (2011) view of the distinction between interpersonal and technology trust. However, we add some points; e.g. trust is perception of human and information technology is a tool. Trust is also a human belief, and trust increases when benefits are more and decreases when risks are high.

A owner/manager's experience with technology and the length of time they have been using IT can be found to have a strong effect on the overall success of IT adoption (Tye and Chau, 1995; Teo et al., 2008). Owner/manager past experience with technology, in terms of exposure and learning, ultimately affects its future choices in adopting technology (Burgelman and Rosenbloom, 1989). This past experience can be measured through time since first acquisition, number and type of technologies or applications adopted, percentage of owner/manager's familiar with the technologies, and the current level of assimilation and integration of the technologies. Osterman (1994); Ichniowski et al. (1995); Freeman et al. (2007), found that younger businesses were more likely to adopt IT, as they have not yet had time to build up an

entrenched management or practices that would be threatened by the adoption or diffusion. McKnight et al. (2002) suggests that an individuals experiences with a specific technology build knowledge-based trust that influences post-adoption technology use. Lack of communication and involvement with consultant, owners and businesses (Venkatesh and Davis, 2000). Study by Venkatesh and Davis (2000) found that the initiative was a top-down one, distrust between the owners and that the businesses were not sufficiently consulted.

Gap in the Literature

Almost all of the previous studies [Goudarzi et al., 2013; Costante et al., 2012; Liu and Datta, 2011; Wong et al., 2009; Hsu and Wang, 2008; Chang, 2006; Kim and Prabhakar, 2004; Suh and Han, 2003; Pavlou, 2003; Luo, 2002; Lee and Turban, 2001; Fogg et al., 2001; De Ruyter et al., 2001; Bhattacherjee, 2004; McKnight and Chervany, 2000; Venkatesh and Davis, 2000] consider that trust has been dealt with from the customer's perspective. But, trust in specific SFBs has yet to be addressed. For this reason, the problem is that, to date there is no study on IT trust, SFB and Nepal. Therefore, the main aim of this study is to see Nepalese SFBs trust in information technology (IT) in districts in Lumbini Zone of Nepal.

For this study; the owner/manager's previous experience and feeling Table [2] is an essential factor in deciding the reliability of the IT.

Table 2: Classification of Trust in Technology Attributes

Attributes	References
a. Feeling	Venkatesh et al. (2011); McKnight et al. (2002);
b. Experiencing	McKnight and Chervany (2001)

Source: own compilation

III. METHODOLOGY

A. Quantitative Method

Here, to fully understand the IT trust of Nepalese SFBs, the quantitative method is used. Survey research approach was found to be suitable for identifying the frequency of certain characteristics amongst population or groups. As the study aims to test the perception of IT by

the SFBs, the total population of the study covered SFBs owner/manager only from selected districts of Lumbini zone, Nepal.

Review of statistics study conducted by Sharma (2012) suggests that up to 1990/91 total registered cottage industries under Department of Cottage and Small Industries were 47,426 which reached 2,16,663 in 2009/10 of which only 60.3 percent of small enterprises were found to be registered. Author also suggests that most of the micro-enterprises established so far are either agro-based, forest-based, or livestock-based and rest of them are metal based, weaving, and restaurant. All these mentioned categories are excluded in this research. Therefore, after excluding 65% this research estimated population is 34,153 SFBs in Gulmi, Palpa, Rupandhai and Kapilvastu; Nepal.

Sample Size

The population of the study covered four districts owners only from Gulmi, Kapilvastu, Rupandhai and Palpa. Sample size based on the criterion specified in Krejcie & Morgan's (1970), the adequate sample size for this level is 380 participants. However, while this research aims to achieve the optimum number of 380 readable responses, a sample size of 200 or over will be considered sufficient according to Table [1], which was based on the summary of several hundred studies representing a very broad sample size (Aaker et al. 2004; Hallal 2010).

Table 3: Seymour Sudman recommended guidelines of the sample size

Details	Institutions	
Number of subgroup analyses	National	Regional or special
None or few	200 -500	50 - 200
Average	500-1000	200 - 500
Many	1000+	500+

Source: adopted from Aaker et al. (2004)

According to Hair (2010), factor analysis is an interdependence technique used to define the underlying structure among variables in the analysis, which are the building blocks of relationships. The authors recommend that the sample size should not be fewer than 50 but preferably 100 or larger. The suggested sample size (100 or larger) complies with Roscoe (1975) proposal that sample size larger than 30 and/or less than 500 are appropriate for most research projects (Sekaran 2000). Taking this into account, this study recognizes the possible limitations of the minimum sample sizes (insensitive) and very large sample sizes (overly sensitive) (Hair 2010) and, obtain more than the minimum recommended sample size i.e. two hundred ten (210).

This research used a rigorous simple random sampling procedure to collect data because randomization ensures that each member of the population has an equal chance of being selected (Creswell 2013; Iacovou, Benbasat, and Dexter 1995; Churchill and Iacobucci 2009). Randomization reduces sampling error to a minimum and improves the meaningfulness of gathered data (Bryman 2008). This research aim was to generalize the findings from employed sample to the population so a single-stage simple randomized sampling procedure was carried out to pursue this objective. Also, it was possible to access each unit of the population and sample the potential respondents directly (Creswell 2013).

Research Instruments

The study used mainly primary data collected using structured questionnaires. The questionnaires were administered to SFB owners/managers. For ease of filling, the questions in the survey tool were mainly closed ended, but for the purposes of allowing respondents to provide data not captured in the questions, some open-ended questions were also included.

Data Collection

This section describes the actual data collection stage and analysis process. It will discuss the participant selection in which participants were selected, invited and interviewed. The field study took place between end of July September, 2015. Data collection methods for qualitative research usually consist of interview, observation, documents and audio visual materials (Creswell 2013). The main purpose of this research is to be helpful to the SFBs by virtue of observing the system. Some of the observations and intervention are made in the formal and

informal settings of meetings and interviews. The survey method was used to collect primary data for the study. This method was used because of the wide area or the research study covered in the universe. Primary data was collected through the use of interview schedule. The questions covered personal, socioeconomic, institutional and other relevant variables too.

Questionnaire & Scale

The questionnaire covered seven questions about the Nepalese SFBs trust on IT. The seven questions are shown in Table [4] below.

Table 4 : Trust in Technology [TT]

Variable Code	Variable Description	Values
TT1	I feel that IT can boost up my business growth	Likert scale [1=Strongly disagree; 5=Strongly agree]
TT2	I use technology but I am afraid.	Likert scale [1=Strongly disagree; 5=Strongly agree]
TT3	I prefer to talk to my suppliers and customers using Technology	Likert scale [1=Strongly disagree; 5=Strongly agree]
TT4	I am very happy with the technology	Likert scale [1=Strongly disagree; 5=Strongly agree]
TT5	I don't like to use phone/ Internet to pay bills.	Likert scale [1=Strongly disagree; 5=Strongly agree]
TT6	Email is helpful for work related communication.	Likert scale [1=Strongly disagree; 5=Strongly agree]
TT7	Solve IT related problems myself or with help.	Likert scale [1=Strongly disagree; 5=Strongly agree]

Source: own compilation

Reliability of the study instrument

Table: 5 Cronbach Alpha Observed for Trust in Technology

Test scale	mean(unstandardized items)
Average inter item covariance:	.693206
Number of items in the scale:	4
Scale reliability coefficient:	0.7825

Source: own compilation

A reliability test was conducted to check for internal bias of the survey responses. First, 119 respondent results were used on a for reliability test. The Cronbach Alpha was observed to be 0.7825. According to Santos and Haubrich (1999) the Cronbach Alpha coefficient must be more than 0.73 to be reliable. Above presented results is above .7390 therefore the data was justified to be used for further analysis.

IV. DESCRIPTIVE ANALYSIS

Descriptive analysis was used to identify the Nepalese SFBs owner/manager's perception of IT adoption in their business. There were seven questions (1-7); having 1. Strongly disagree; 2. Disagree; 3. Neither; 4. Agree; and 5. Strongly agree answers.

A. *Feel that IT can boost up my business growth.*

Table: 6 IT can Boost Business Growth

Scale	Frequency	Percent
Strongly Disagree	23	11.0
Disagree	23	11.0
Neither	23	11.0
Agree	92	43.8
Strongly Agree	49	23.3
Total	210	100.0

Source: own compilation

First: I feel that IT can boost up my business growth.

Result in Table [6] above presents; 11.0 percent or 23 respondents indicated strongly disagree; 11.0 percent or 23 respondents indicated disagree; 11.0 percent or 23 respondents indicated neither; 43.8 percent or 92 respondents indicated agree; and 23.3 percent or 49 respondents indicated strongly agree.

B. I use technology but I am afraid

Table: 7 Afraid to Use IT

Scale	Frequency	Percent
Strongly Disagree	14	6.7
Disagree	45	21.4
Neither	48	22.9
Agree	82	39.0
Strongly Agree	21	10.0
Total	210	100.0

Source: own compilation

Second: I use technology but I am afraid.

Result in Table [7] above presents; 6.7 percent or 14 respondents indicated strongly disagree; 21.4 percent or 45 respondents indicated disagree; 22.9 percent or 48 respondents indicated neither; 39.0 percent or 82 respondents indicated agree; and 10.0 percent or 21 respondents indicated strongly agree.

C. I prefer to talk to my suppliers and customers using Technology

Table: 8 Talking about IT with Suppliers and Customers

Scale	Frequency	Percent
Strongly Disagree	8	3.8
Disagree	15	7.1
Neither	37	17.6
Agree	120	57.1
Strongly Agree	30	14.3
Total	210	100.0

Source: own compilation

Third: I prefer to talk to my suppliers and customers using Technology.

Result in Table [8] above presents; 3.8 percent or 8 respondents indicated strongly disagree; 7.1 percent or 15 respondents indicated disagree; 17.6 percent or 37 respondents indicated neither; 57.1 percent or 120 respondents indicated agree; and 14.3 percent or 30 respondents indicated strongly agree.

D. I am very happy with the technology.

Table: 9 Very Happy with Technology

Scale	Frequency	Percent
Strongly Disagree	7	3.3
Disagree	24	11.4
Neither	33	15.7
Agree	90	42.9
Strongly Agree	56	26.7
Total	210	100.0

Source: own compilation

Fourth: I am very happy with the technology.

Result in Table [9] above presents; 3.3 percent or 7 respondents indicated strongly disagree; 11.4 percent or 24 respondents indicated disagree; 15.7 percent or 33 respondents indicated neither; 42.9 percent or 90 respondents indicated agree; and 26.7 percent or 56 respondents indicated strongly agree.

E. I don't like to use phone/ Internet to pay bills.

Table: 10 Paying Bills Using Phone / Internet

Scale	Frequency	Percent
Strongly Disagree	21	10.0
Disagree	51	24.3
Neither	32	15.2
Agree	71	33.8
Strongly Agree	35	16.7
Total	210	100.0

Source: own compilation

Fifth: I don't like to use phone/ Internet to pay bills.

Result in Table [10] above presents; 10.0 percent or 21 respondents indicated strongly disagree; 24.3 percent or 51 respondents indicated disagree; 15.2 percent or 32 respondents indicated neither; 33.8 percent or 71 respondents indicated agree; and 16.7 percent or 35 respondents indicated strongly agree.

F. Email is helpful for work related communication.

Table: 11 Email Helpful for Communication

Scale	Frequency	Percent
Strongly Disagree	11	5.2
Disagree	24	11.4
Neither	25	11.9
Agree	93	44.3
Strongly Agree	57	27.1
Total	210	100.0

Source: own compilation

Sixth: Email is helpful for work related communication.

Result in Table [11] above presents; 5.2 percent or 11 respondents indicated strongly disagree; 11.4 percent or 24 respondents indicated disagree; 11.9 percent or 25 respondents indicated neither; 44.3 percent or 93 respondents indicated agree; and 27.1 percent or 57 respondents indicated strongly agree.

G. Solve IT related problems myself or with help.

Table: 12 Resolving IT Related Problems

Scale	Frequency	Percent
Strongly Disagree	17	8.1
Disagree	21	10.0
Neither	31	14.8
Agree	87	41.4
Strongly Agree	54	25.7
Total	210	100.0

Source: own compilation

Seventh: Solve IT related problems myself or with help.

Result in Table [12] above presents; 8.1 percent or 17 respondents indicated strongly disagree; 10.0 percent or 21 respondents indicated disagree; 14.8 percent or 31 respondents indicated neither; 41.4 percent or 87 respondents indicated agree; and 25.7 percent or 54 respondents indicated strongly agree.

V. CONCLUSION

This study has met the objective of identifying Nepalese SFB owner/manager's trust in IT. Descriptive analysis of percent and frequency was used. The result of statistical analysis on the data revealed that out of the seven attributes; 27 percent SFBs owner/managers strongly agreed that Email is helpful for business communication purpose; 26.7 percent were strongly agreed that they were happy with the technology; 25.7 strongly agreed that they resolve IT problem

themselves of with help. 23.3 strongly agreed that IT can boost their business growth. Very few; i.e.10 percent of them strongly disagreed on use of phone/internet bill payment, and 6.7 percent are afraid of using IT. The result above shows that Nepalese SFBs have trust in information technology and they believe that IT can help them to grow when it is used.

VI. REFERENCES

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