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Abstract

Most research on Internet banking adoption has focused on a limited set of determinants that influence users' initial trust. This study takes the uncommon approach of separating the constructs of trust, perceived security, and perceived privacy to reveal the impact that each of these distinct factors has on initial trust formation. A large-scale survey of prospective Internet banking service customers in Indonesia was conducted and the results analyzed using a structural equation modeling approach. Perceived security, perceived privacy, relative benefits, company reputation, website usability, and government support are all factors that influence consumers' initial trust of Internet banking. Banking firms interested in the expansion of online financial services in developing countries should enhance existing strategies or develop new approaches that account for these factors. Perceived privacy and government support had no impact on the intention to use Internet banking services in Indonesia.

Keywords

initial trust, Internet banking, usage intention, technology adoption, Indonesia

Perceived security has the greatest influence in shaping initial trust formation towards Internet banking services in Indonesia.

Introduction

Electronic banking or e-banking are banking services facilitated with information and communication technology (Pikkarainen et al. 2004) and include activities like balance checking, reviewing transaction histories, payments, fund transfers, and document printing (Tan and Teo 2000; Brown et al. 2004). E-banking may be grouped into multiple categories including Internet banking, automatic teller machine (ATM) banking, and phone banking (Aladwani 2001; Cheng et al. 2006). Internet banking is one of the most profitable financial services (Lee 2009) and tremendous growth is anticipated in developing countries, including online support for offline banking services (Kim et al. 2009).

Previous research has found that e-commerce trust formation impacts the penetration rate of online-based commerce (Hoffman et al. 1999; Lee and Turban

2001; McKnight et al. 2002b; Pavlou 2003; Hampton-Sosa and Koufaris 2005; Chen and Barnes 2007). E-commerce trust formation similarly influences Internet banking acceptance (Suh and Han 2002). Few studies have examined the interrelationships among the constructs that comprise trust formation (Yousafzai et al. 2003; Casalo et al. 2007), particularly in the context of Internet banking and in developing countries.

Trust is important in both online and offline banking services (Yoon 2002; Lee and Chung 2009). Consumers are reluctant to accept and to use e-commerce without first having established trust

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(Jarvenpaa et al. 2000; Lee and Turban 2001; Corbitt et al. 2003; Mukherjee and Nath 2003; Kim et al. 2004; Cheung and Lee 2006; Chen and Barnes 2007), especially when uncertainty, security, and privacy concerns are not addressed (Gefen 2000; Tan and Teo 2000; Gefen and Straub 2004; Cheng et al. 2006; Shih and Fang 2006; Casalo et al. 2007; Zhao et al. 2008; Lee 2009; Zhou 2011). Concerns over online transactions are underscored in developing countries where trust is traditionally developed through family associations as well as personal interactions (Lawrence and Tar 2010).

Initial trust formation in Internet banking is expected to vary in developed and developing countries, although most research has examined this phenomena from the context of developed countries (e.g. Mukherjee and Nath 2003; Pikkarainen et al. 2004; Gibbs and Kraemer 2004). The objective of this study is to examine the formation of users' initial trust in Internet banking in a developing country, Indonesia. The paper is structured as follows: a literature review is presented to support this study's hypotheses followed by a brief discussion of the research methodology. The hypotheses are then empirically tested with a large-scale field survey, followed by a discussion of the results, and then some concluding remarks.

Theoretical background

Internet banking in Indonesia

E-banking emerged in Indonesia with ATM services in 1987 and Internet banking by Bank Niaga in 1991 (Bank CMB Niaga 2009) and Bank International Indonesia (BII) in 1998 (Wikipedia 2011). Bank Central Asia (BCA) became a pioneer of e-banking products and services in Indonesia in 2001 (Wikipedia 2011) and is the largest privately-owned banking company, having the biggest network of ATMs across the country (Biro Riset Infobank 2011). Internet penetration is expected to increase dramatically over the next five years in Indonesia (Internet World Stats 2011). The Asian market is expected to become significant users of online mobile banking services (Berg Insight 2010) but few studies have examined Internet banking in Indonesia.

Trust

Trust is a complex phenomenon (McKnight et al. 2002a) having multiple diverse definitions (Chen and Dhillon 2003). This study follows Mayer et al.'s

(1995) definition of trust, which has become widely accepted in the e-commerce domain (Rousseau et al. 1998). Trust is "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer et al. 1995, p. 172). Trust comprises both a calculative-based component based on cost-benefit assumptions (Williamson 1993; McKnight et al. 1998) and a knowledge-based component from acquired trust-relevant knowledge through experience (McKnight et al. 2002a). Trust implies calculative, prediction, capability, intentionality, and transference processes between the buyer and seller relationship (Doney and Cannon 1997).

Initial trust is important in the early phases of a relationship and is influenced by an individual's propensity to trust (Mayer et al. 1995; McKnight et al. 1998). Researchers have found support for multiple factors that shape initial trust, including perceived reputation, structural assurance, and website quality (Jarvenpaa et al. 1999; Fung and Lee 1999; McKnight et al. 2002b; Koufaris and Hampton-Sosa 2004; Flavian et al. 2005). Initial trust formation affects the intention to purchase (Yoon 2002; Balasubramanian et al. 2003) which influences the acceptance and use of e-banking services (Kim and Prabhakar 2004; Kim et al. 2009; Zhou 2011).

Antecedents of trust

Table 1 lists empirical results of previous research examining various antecedents of trust in the e-commerce domain. Antecedents of trust emerge based on individual characteristics, institutional phenomena, and interpersonal transaction characteristics (Bhattacharya et al. 1998). Trust antecedents are formed based on cognition (e.g. perceived security, perceived privacy, website usability), affection (e.g. reputation, word of mouth), personality (e.g. propensity to trust), and experience (e.g. familiarity) (McKnight et al. 2002a). Trust antecedents have also been classified into several forms including knowledge or familiarity, institution-based or third party support, and calculative-based trust (Gefen et al. 2003). The antecedents of trust examined in this study include relative benefits, perceived security and perceived privacy, trust propensity, perceived reputation, website usability, and government support.

Table 1. Antecedents of trust.

Antecedent	Mediating variable	Relationship	Sources
Relative Benefits	Initial Trust	Significant	Kim et al. (2009)
Perceived Security	Initial Trust	Significant	Koufaris and Hampton-Sosa (2004); Chen and Barnes (2007)
Perceived Security	Trust	Significant	Cheung and Lee, (2006)
Perceived Security	Trust	Not significant	Kim et al. (2004)
Perceived Privacy	Initial Trust	Significant	Chen and Barnes (2007)
Perceived Privacy	Trust	Significant	Casalo et al. (2007)
Perceived Privacy	Trust	Not significant	Cheung and Lee (2006); Kim et al. (2004)
Trust Propensity	Initial Trust	Significant	Chen and Barnes (2007); Kim et al. (2009); Kim and Prabhakar (2004)
Trust Propensity	Initial Trust	Not significant	Koufaris and Hampton-Sosa (2004); Hampton-Sosa and Koufaris (2005)
Trust Propensity	Trust	Significant	Teo and Liu (2007); Gefen and Straub (2004)
Trust Propensity	Trust	Not significant	Cheung and Lee (2006)
Company Reputation	Initial Trust	Significant	Jarvenpaa et al. (1999); Fung and Lee (1999); McKnight et al. (2002b)
Company Reputation	Initial Trust	Not significant	Kim et al. (2009)
Company Reputation	Trust	Significant	Teo and Liu (2007); Kim et al. (2004)
Website Usability	Initial Trust	Not significant	Hampton-Sosa and Koufaris (2005)
Website Usability	Initial Trust	Significant	Koufaris and Hampton-Sosa (2004)
Website Usability	Trust	Significant	Casalo et al. (2007); Corbitt et al. (2003)
Government Support	Trust	Significant	Hampton-Sosa and Koufaris (2005); Welch et al. (2004)

Research model and hypotheses

Research model

This study extends previous frameworks of initial trust formation (e.g. McKnight et al. 2002b; Kim et al. 2009). Perceived security, perceived privacy, website usability, and government support are each incorporated as antecedents of initial trust formation in Internet banking acceptance. Figure 1 illustrates the proposed research model.

Hypotheses

Hypotheses are developed without incorporating perceived risk even though risk is considered a prerequisite condition for the emergence and understanding of trust (Mayer et al. 1995). The relationship between trust and risk is convoluted as risk has been found to be both an outcome of trust (Mayer et al. 1995; Koller 1988; Ratnasingham 1998; Lim 2003) as well as a predictor of trust (Pavlou 2003). The focus of this study is on initial trust formation. Perceived risk was not incorporated in this study to minimize both potentially confounding and confusing results (Cheung and Lee 2006).

Relative benefits are realized when a new service offers more value in terms of economic benefits, enhanced personal image, convenience and satisfaction than existing services (Rogers 1995). Consistent with Kim et al. (2009), relative benefits are expected to influence initial trust formation (Kim et al. 2009) and one's subsequent intention to use Internet banking services (Lee 2009). This study hypothesizes that:

H1: Relative benefits of Internet banking significantly influence one's initial trust.

H2: Relative benefits of Internet banking significantly influence one's usage intention.

Security and privacy concerns are essential to e-commerce and e-banking success (Ratnasingham 1998; Simpson 2002; Lee 2009; Zhou 2011). Cheng et al. (2006) proposed operationalizing security and privacy as separate constructs to illuminate how each influences initial trust (Yousafzai et al. 2003). Previous research has validated the significant of security and privacy as distinct constructs, but privacy has not been found to influence trust (Cheung and Lee 2006). Security and privacy have had an insignificant effect on trust (as structural

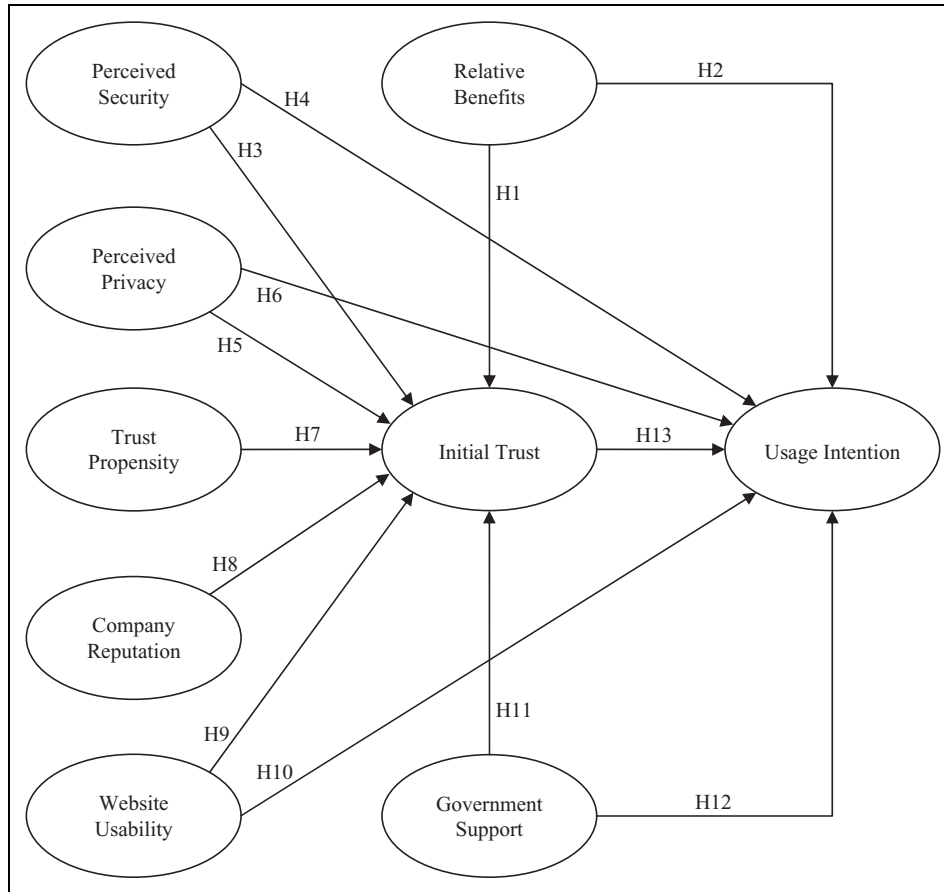


Figure 1.

assurance) (Kim et al. 2004; Lee, et al. 2007) and a relatively weak relationship with online banking acceptance (Pikkarainen et al. 2004). This study hypothesizes that:

H3: Perceived security of Internet banking services positively influences one's initial trust.

H4: Perceived security of Internet banking services positively influences one's intention to use.

H5: Perceived privacy of Internet banking services positively influences one's initial trust.

H6: Perceived privacy of Internet banking positively influences one's intention to use.

Trust propensity is one's general propensity to trust others. Previous research has produced mixed results finding both a significant relationship (McKnight et al. 1998; Gefen 2000; Gefen and Straub 2004; Chen and Barnes 2007; Teo and Liu 2007; Kim et al. 2009) and an insignificant relationship (Koufaris and Hampton-Sosa 2004; Hampton-Sosa and Koufaris 2005; Cheung and Lee 2006) between trust propensity and trust. This study hypothesizes that:

H7: One's trust propensity positively influences his/her initial trust formation in Internet banking.

Reputation is an important factor that influences initial trust building (Jarvenpaa et al. 1999; Fung and Lee 1999; Koufaris and Hampton-Sosa 2004). Reputation is particularly important in the initial stages of trust formation when consumers have little knowledge about a partner. Kim et al. (2009) found the opposite and explained that reputation may no longer lead to trust when a banking firm is unknown or reaches a certain level of reputation. This study hypothesizes that:

H8: Perceived reputation of a banking company positively relates to one's initial trust.

Website usability is the ability to attract consumers and create a positive early impression through website functionalities. Website usability influences consumers' initial trust (Fung and Lee 1999; Lee and Chung 2009) and facilitates intentions to continue using an online service. Usability is a determinant of system

Table 2. Demographic characteristics of respondents.

Category	Frequency	Percent
Gender		
Male	165	65.7
Female	86	34.3
Age		
<20	60	23.9
20-25	184	73.3
>25	7	2.8
Internet experience		
<1 year	3	1.2
1-2 years	8	2.8
2-5 years	99	39.4
5-10 years	126	50.2
>10 years	15	6.4

usage intentions (Teo et al. 2003). Perceived ease of use has been found to have an insignificant impact on usage intention in Internet banking (Pikkarainen et al. 2004). This study hypothesizes that:

H9: The context of perceived website usability of Internet banking positively influences one's initial trust.

H10: The context of perceived website usability of Internet banking positively influences one's intention to use.

Government involvement is an important factor in the adoption of banking technologies (Tan and Teo 2000; Brown et al. 2004; Chong et al. 2010). Government involvement is also important for increasing trust (Hampton-Sosa and Koufaris 2005; Welch et al. 2004) and a more important determinant in the initial stages of trust (Zucker 1986). This study hypothesizes that:

H11: Perceived government support of Internet banking implementation positively influences one's initial trust

H12: The greater the degree of perceived government support for Internet banking, the more likely it will be used.

A positive relationship exists between the extent of trust in a company and usage intention (Suh and Han 2002). This study hypothesizes that:

H13: The degree of one's initial trust in Internet banking is positively correlated with his/her usage intention.

Data analysis and results

A pilot study was conducted to validate the research model using 40 Indonesian bank customers that were active Internet users but had yet to activate Internet banking features. Undergraduate software engineering and information systems students at a state university in Jakarta were solicited to participate in a large-scale field survey with inclusion into a lottery drawing as an incentive to participate. All respondents were Indonesian, were personal banking customers with Internet experience, but had never used Internet banking services. 251 usable and complete responses were analyzed out of 286 that were collected. Respondent demographic characteristics are listed in Table 2.

The survey items were adopted from previous studies and adapted to the context of Internet banking (See Appendix A). The survey items were anchored from 'strongly disagree' to 'strongly agree' using a 7-point Likert scale. The research model was assessed using partial least squares (PLS) analysis with SPSS 18.0 and PLS-Graph 3.0. PLS is appropriate for explicating the complex relationships of latent constructs while avoiding inadmissible solutions and factor indeterminacy. PLS is applicable to small and medium samples in estimation and is effective for models consisting of many variables and constructs (Fornell and Bookstein 1982; Chin 1998).

Measurement

The measurement model was assessed by examining the reliability, the convergent validity, and the discriminant validity of the research instruments. Appendix B lists the instrument reliability and validity results of the measurement model. Cronbach's alpha and Composite Reliability (CR) values for each construct were calculated to assess reliability. The recommended threshold value is greater than 0.7, but slightly lower is also acceptable (Nunnally 1978; Hair et al. 2009). Values ranging around 0.5 to 0.7 are mediocre but also acceptable (Kaiser 1974; Hulland 1999). Two items (BEN4 and PRV1) were excluded in the data analysis to improve the reliability coefficients and satisfy the minimum Cronbach alpha cut-off values.

Convergent validity refers to the degree to which different items that attempt to measure the same construct agree and should be highly correlated (Bagozzi and Phillips 1982). Convergent validity is assessed examining the significance of each indicator's loading to its respective construct (Anderson and Gerbing

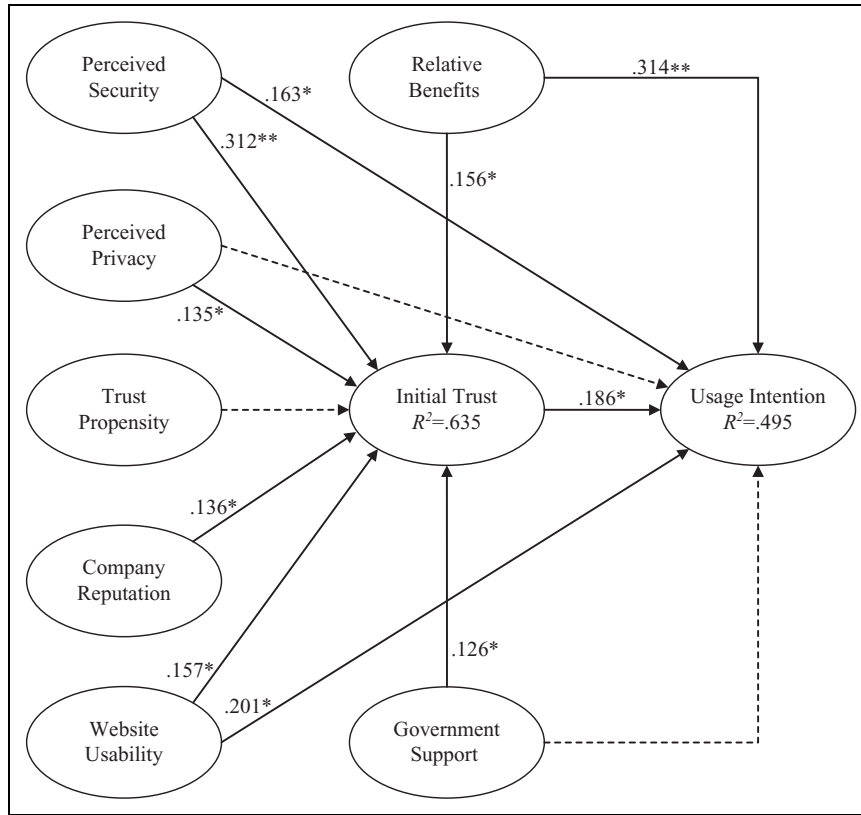


Figure 2.

1988). All appropriate factor loading scores were greater than 0.7 except for one variable (PRV 4) and every indicator was significant. The average variance extracted (AVE) for all of the latent constructs was also above the recommended value of 0.5. The measurement analysis satisfies the criteria of convergent validity (Fornell and Larcker 1981).

Discriminant validity is the degree to which constructs are unrelated to each other. When different constructs share low covariance, the uniqueness of the measures can be assessed (Bagozzi and Phillips 1982). Discriminant validity can be assessed by either examining the square root of the AVE or by examining cross-loadings. Discriminant validity of constructs is supported when the square root of the AVE is greater than all of the inter-construct correlations (Chin 1998). The highest inter-correlation value was 0.624 while the lowest square root of the AVE was 0.778 in the table of construct correlations (See Appendix C). Item cross-loadings should be higher on its assigned construct than on others (Gefen et al. 2000), which was satisfied (See Appendix D).

Common method bias issue is a concern while examining the reliability and validity of a research

model. Unexpected biased-response errors (e.g. consistency motif, social desirability bias, leniency biases, etc.) can exist with self-reported data and may seriously affect the research findings (Podsakoff et al. 2003). A Harman’s single-factor test through exploratory factor analysis is an approach to confirm common method bias. The result of the test should show that all items do not form into a single factor and that the variance of the first factor needs to have a low percentage of the total variance. A single factor did not emerge and the variance of the first factor was 36.59% of the total variance. Common method bias is not a concern. The analysis supports the sufficient reliability and validity of the research model.

Hypotheses Testing

Figure 2 illustrates the overall result of PLS analysis. All of the 13 hypotheses were supported except H6 (perceived privacy to usage intention), H7 (trust propensity to initial trust), and H12 (government support to usage intention). The model explained about 63.5% of the variance in initial trust and

Table 3. Hypothesis testing summary.

Hypotheses	Path coeff.	t-value	p-value	Result	
H1	Relative Benefits → Initial Trust	0.156*	2.404	0.016	Supported
H2	Relative Benefits → Usage Intention	0.314**	4.646	0.000	Supported
H3	Perceived Security → Initial Trust	0.312**	4.660	0.000	Supported
H4	Perceived Security → Usage Intention	0.163*	2.120	0.035	Supported
H5	Perceived Privacy → Initial Trust	0.135*	2.486	0.014	Supported
H6	Perceived Privacy → Usage Intention	-0.087	1.195	0.233	Not supported
H7	Trust Propensity → Initial Trust	0.058	1.171	0.243	Not supported
H8	Company Reputation → Initial Trust	0.136*	2.006	0.046	Supported
H9	Website Usability → Initial Trust	0.157*	2.553	0.011	Supported
H10	Website Usability → Usage Intention	0.201*	2.555	0.011	Supported
H11	Government Support → Initial Trust	0.126*	2.300	0.022	Supported
H12	Government Support → Usage Intention	0.099	1.454	0.147	Not supported
H13	Initial Trust → Usage Intention	0.186*	2.050	0.041	Supported

Note: * $p < .05$; ** $p < .01$.

49.5% of the variance in usage intention, which demonstrates that the explanatory power of the model is sufficient.

The results provide evidence that most proposed hypotheses are statistically significant. Relative benefits had a significant impact on both initial trust and usage intention support for H1 ($t = 2.404$, $p < 0.05$) and H2 ($t = 4.646$, $p < 0.001$). Trust propensity was not a significant antecedent of initial trust. Perceived security had a strong and significant effect on initial trust and influenced usage intention (H3: $t = 4.660$, $p < 0.001$; H4: $t = 2.120$, $p < 0.05$). Perceived privacy had significant impact on initial trust (H5: $t = 2.486$, $p < 0.05$) but not on usage intention. Website usability also affected both initial trust and usage intention (H9: $t = 2.553$, $p < 0.05$; H10: $t = 2.555$, $p < 0.05$). Company reputation and government support had significant effects on initial trust (H8: $t = 2.006$, $p < 0.05$; H11: $t = 2.300$, $p < 0.05$) but government support did not influence usage intention. Initial trust influenced usage intention (H13: $t = 2.050$, $p < 0.05$). Initial trust has a partial mediating role between the antecedents and usage intention. Detailed hypothesis testing results are listed in Table 3.

Discussion

Perceived security was the strongest antecedent to influence initial trust formation in Internet banking services, followed by website usability and relative benefits. Perceived privacy, company reputation, and government support also had a significant influence on initial trust formation. The results are consistent

with previous findings which validate the importance of security as a key determinant on consumer online trust (McKnight et al. 2002b; Chen and Dhillon 2003; Cheung and Lee 2006; Casalo et al. 2007). Security influences a user's perceptions of banking services (Tan and Teo 2000; Simpson 2002; Pikkarainen et al. 2004; Lee 2009). Security had the greatest influence in eliciting consumer's initial trust to utilize Internet banking services. Banking firms in developing countries should consider security a necessity moving forward with Internet banking services. Security may be a difficult challenge for firms in developing countries to address as infrastructure deficiencies are common barriers to access and success.

Government support is the primary resource to address infrastructure challenges facing firms pursuing Internet banking services in developing countries. Government involvement through the promotion of appropriate laws, rules, and regulations influences how users adopt a technology system like e-commerce applications (Boadi et al. 2007) and Internet banking in particular (Tan and Teo 2000; Brown et al. 2004; Chong et al. 2010). The study findings found that government support significantly influences initial trust, but surprisingly did not impact usage intention. The result is surprising particularly for the study participants examined as the Indonesian culture is generally characterized as being dependent on and obedient to hierarchy (Hofstede 2001). Government support was enough to develop initial trusting beliefs, but not sufficient to compel an intention to use Internet banking. These findings warrant further examination.

Conclusion

This study explored the complex construct of trust by explicitly examining several relevant antecedents and outcomes of initial trust in a developing country. This study is unique in that few previous studies have investigated the determinants of consumer trust in Internet banking. This study is also one of the first comprehensive examinations of Internet banking in Indonesia. Firms are able to develop successful exchange relationships with their customers with a better understanding of the factors that influence consumer trust (Hoffman et al. 1999). Several factors that influence consumers' initial trust in Internet banking in developing countries were identified, including trust, perceived security, and perceived privacy as three distinct constructs. Perceived security had the greatest influence in shaping initial trust formation towards Internet banking services. Additional research that examines the role that government support has for Internet banking adoption in developing countries may yield interesting results.

Limitations and future research

The limitations of this study provide multiple opportunities for future research to address. This study was conducted using undergraduate students who typically do not have full-time employment, substantial disposable income, or the same needs for Internet banking services as the average banking consumer. Students are generally independent, are

familiar with Internet-based technology services, and are more educated than the common consumer (McKnight et al. 2002a). The focus of this study was personal banking customers with Internet experience but lacking Internet banking service experience so the sampling was appropriate. A more generalized sampling including non-students and graduates that meet the study profile may provide additional insights.

The research design was limited to Internet banking in developing countries. Indonesia is a developing country, but may not be representative of all developing countries that are situated throughout the world in locales having unique constraints. The study found support for multiple hypotheses consistent with previous research, but the findings related to perceived security and government support present results that validate the examination of Indonesia. Additional insights are likely to be gained by examining consumer trust in Internet banking in other developing countries having differences in government, infrastructure, and culture.

Future research should examine additional ways to extend the study's research model. The dependent variable of this research was Internet banking usage intention and not actual usage. Actual use of Internet banking services over time may provide a much better representation of how fluid the construct of trust is beyond initial trusting beliefs. Different factors likely have varying significance for trust over time. The role that the factors examined in this study have for developing countries over time is a unique perspective that should yield interesting results.

Appendix A. Survey items

No.	Measured Items	References
I	<i>Relative Benefits</i>	
1	Internet banking will make it easier for me to conduct my banking transactions	Tan and Teo (2000)
2	Internet banking is useful for managing my financial resources	
3	Internet banking allows me to manage my finances more effectively	
4	Internet banking is more convenient than offline banking	Kim et al. (2009)
II	<i>Perceived Security</i>	
1	I feel secure about the electronic payment system of Internet banking	Hampton-Sosa and Koufaris (2004)
2	The company implements security measures to protect Internet banking users	Cheung and Lee (2006)
3	Internet banking website has the ability to verify users' identity for security purposes	
4	Internet banking has the ability to solve problems from security threats	Chen and Barnes (2007)
III	<i>Perceived Privacy</i>	
1	I will lose control of my personal data (reversed)	Zhao et al. (2008)
2	I will feel safe when I send personal information in Internet banking	Casalo et al. (2007)

(continued)

(continued)

No.	Measured Items	References
3	Internet banking company will not divulge consumers' personal data to other parties	Cheung and Lee (2006)
4	Internet banking company concerns about consumers' privacy	
<i>IV Trust Propensity</i>		
1	I generally trust other people	Gefen (2000)
2	I feel that people are generally reliable	Gefen and Straub (2004)
3	I tend to trust a person/thing, even though I have a little knowledge of it	Lee and Turban (2001)
4	Trusting someone or something is not difficult	
<i>V Company Reputation</i>		
1	The company is well-known	Jarvenpaa et al. (1999)
2	The company has a good reputation	
3	In public opinion, the company is favorably regarded	Kim et al. (2004)
4	The company offers good services	Kim et al. (2009)
<i>VI Website Usability</i>		
1	In Internet banking website, everything is easy to understand	Casalo et al. (2007)
2	Internet banking website is simple to use, even when visiting it for the first time	
3	It is easy to find the information I need from Internet banking website	
4	The structure and the contents of Internet banking website are easy to understand	Corbitt et al. (2003)
<i>VII Government Support</i>		
1	Government endorses the use of Internet and e-commerce	Tan and Teo (2000)
2	The internet infrastructure and facilities such as bandwidth is sufficient for online banking	Chong et al. (2010)
3	The government is driving the development of online banking	
4	The government has good regulations and laws for internet banking	
<i>VIII Initial Trust</i>		
1	The company is trustworthy	Hampton-Sosa and Koufaris (2004)
2	I believe in the information that this company provides me	
3	Internet banking always provides accurate financial services	Kim et al. (2009)
4	Internet banking always provides reliable financial services	
<i>IX Usage Intention</i>		
1	I will use Internet banking for my banking needs	Cheng et al. (2006)
2	Using Internet banking for handling my banking transactions is something I will do	
3	I will see myself using Internet banking for processing my banking transactions	

Appendix B. Instrument reliability and validity results

Constructs	Item	Loading	Standard error	t-value	Cronbach's alpha	CR	AVE
Relative Benefits (BEN)	BEN1	0.854	0.030	28.057	0.812	0.889	0.727
	BEN2	0.870	0.027	32.786			
	BEN3	0.834	0.028	29.478			
Perceived Security (SEC)	SEC1	0.756	0.040	18.878	0.825	0.885	0.659
	SEC2	0.846	0.028	29.852			
	SEC3	0.822	0.037	22.369			
	SEC4	0.820	0.025	32.512			

(continued)

(continued)

Constructs	Item	Loading	Standard error	t-value	Cronbach's alpha	CR	AVE
Perceived Privacy (PRV)					0.665	0.824	0.611
	PRV2	0.805	0.053	15.278			
	PRV3	0.853	0.035	24.738			
	PRV4	0.678	0.066	10.343			
Trust Propensity (PRO)					0.784	0.860	0.606
	PRO1	0.757	0.052	14.499			
	PRO2	0.822	0.032	25.920			
	PRO3	0.780	0.043	18.238			
Company Reputation (REP)					0.832	0.889	0.668
	REP1	0.737	0.047	15.737			
	REP2	0.876	0.021	42.068			
	REP3	0.799	0.031	25.804			
Website Usability (USB)					0.911	0.938	0.790
	USB1	0.860	0.027	31.523			
	USB2	0.892	0.023	39.227			
	USB3	0.883	0.019	47.546			
Government Support (GOV)					0.843	0.896	0.683
	GOV1	0.821	0.028	29.462			
	GOV2	0.800	0.033	24.267			
	GOV3	0.835	0.029	28.896			
Initial Trust (TRU)					0.853	0.901	0.695
	TRU1	0.800	0.041	19.728			
	TRU2	0.888	0.015	61.345			
	TRU3	0.857	0.022	39.390			
Usage Intention (INT)					0.902	0.939	0.837
	INT1	0.912	0.021	43.668			
	INT2	0.920	0.019	49.026			
	INT3	0.913	0.021	42.631			

Appendix C. Construct correlations

	BEN	SEC	PRV	PRO	REP	USB	GOV	TRU	INT
BEN	0.853								
SEC	0.423	0.812							
PRV	0.325	0.571	0.782						
PRO	0.238	0.334	0.313	0.778					
REP	0.409	0.624	0.349	0.371	0.817				
USB	0.392	0.566	0.378	0.250	0.520	0.889			
GOV	0.257	0.517	0.361	0.248	0.425	0.526	0.826		
TRU	0.495	0.712	0.532	0.362	0.598	0.597	0.531	0.834	
INT	0.551	0.541	0.315	0.250	0.544	0.546	0.437	0.583	0.915

Appendix D. Cross-loading table

	BEN	SEC	PRV	PRO	REP	USB	GOV	TRU	INT
BEN1	.853	.393	.294	.208	.410	.326	.263	.462	.507
BEN2	.866	.297	.222	.175	.282	.333	.168	.410	.427
BEN3	.838	.381	.309	.223	.343	.344	.218	.388	.467
SEC1	.392	.757	.496	.333	.480	.450	.342	.536	.485
SEC2	.327	.853	.525	.236	.516	.468	.438	.578	.389
SEC3	.320	.823	.415	.232	.499	.492	.441	.566	.409
SEC4	.332	.811	.417	.283	.527	.428	.454	.628	.472
PRV2	.219	.378	.648	.215	.195	.254	.240	.396	.270
PRV3	.183	.418	.822	.247	.242	.238	.316	.370	.162
PRV4	.338	.527	.864	.269	.360	.374	.293	.471	.295
PRO1	.177	.234	.218	.755	.280	.228	.149	.269	.199
PRO2	.214	.308	.293	.819	.331	.191	.161	.314	.180
PRO3	.167	.274	.238	.782	.301	.197	.264	.292	.206
PRO4	.183	.214	.218	.757	.234	.164	.198	.247	.195
REP1	.306	.325	.182	.286	.738	.312	.183	.362	.387
REP2	.354	.485	.258	.323	.878	.435	.334	.483	.460
REP3	.354	.505	.282	.324	.853	.400	.378	.488	.479
REP4	.322	.659	.382	.282	.795	.516	.439	.581	.444
USB1	.312	.485	.346	.158	.461	.859	.455	.528	.477
USB2	.338	.466	.281	.259	.507	.892	.452	.501	.469
USB3	.373	.548	.361	.235	.450	.884	.483	.564	.485
USB4	.369	.510	.352	.236	.434	.920	.479	.529	.510
GOV1	.251	.428	.356	.192	.349	.517	.824	.458	.385
GOV2	.171	.411	.236	.185	.357	.417	.801	.421	.327
GOV3	.232	.422	.273	.274	.355	.388	.834	.410	.365
GOV4	.193	.446	.320	.171	.343	.408	.845	.462	.362
TRU1	.395	.538	.434	.390	.524	.416	.426	.800	.421
TRU2	.334	.502	.420	.281	.431	.453	.404	.785	.435
TRU3	.449	.662	.452	.276	.523	.579	.493	.888	.537
TRU4	.459	.654	.466	.274	.512	.529	.443	.857	.539
INT1	.500	.470	.272	.219	.467	.512	.387	.510	.911
INT2	.483	.515	.315	.231	.503	.482	.398	.545	.920
INT3	.527	.499	.279	.234	.522	.504	.412	.545	.913

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