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# The Influence of Behavioral factors on SMES' Owners Intention to adopt private finance

Ploypailin Kijkasiwat<sup>1</sup>

## Abstract

This study examines how behavioral factors of business owners impact on the intention to use private finance in small and medium enterprises (SMEs). The study adopts the theory of planned behavior to investigate the effect of attitudes, subjective norms and perceived behavioral control on the choice and use of retained earnings and private equity by SMEs. The research samples are firms across 29 countries from Eastern Europe and Central Asia. The study uses partial least square structural equation modelling for the analysis. It was found that attitudes, subjective norms and perceived behavioral control of owners of SMEs' impact on their intention to use private finance at a statistically significant level of 1 percent. These findings are discussed and the implications and suggestions for future study are proposed in this paper.

**Keyword:** Private finance; Private equity; SMEs; Behavioral factors

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## Abstract

This study examines how behavioral factors of business owners impact on the intention to use private finance in small and medium enterprises (SMEs). The study adopts the theory of planned behavior to investigate the effect of attitudes, subjective norms and perceived behavioral control on the choice and use of retained earnings and private equity by SMEs. The research samples are firms across 29 countries from Eastern Europe and Central Asia. The study uses partial least square structural equation modelling for the analysis. It was found that attitudes, subjective norms and perceived behavioral control of owners of SMEs' impact on their intention to use private finance at a statistically significant level of 1 percent. These findings are discussed and the implications and suggestions for future study are proposed in this paper.

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## 1. Introduction

Accessing loans from banks is one of the main options for the operation of small and medium enterprises (SMEs). However, because of the limitations associated with firm size, banks may require collateral as a guarantee before providing finance. Further, the possible inability to meet interest payments can result in bankruptcy for small firms. It has been observed that difficulty in obtaining collateral is more prevalent for newer and smaller firms (Bester, 1985). Additionally, small businesses seeking finance may be confronted with the problem of an equity gap. (De Maeseneire & Claeys, 2012). SMEs who are not listed companies and those who do not publicly trade on the stock market may find it difficult to access equity finance, but stock market flotation is more expensive for smaller companies (Lee, Lochhead, Ritter, & Zhao, 1996). It has also been shown that when small companies first go public, they are often severely underpriced (Buckland & Davis, 1990). Without financial support, many SMEs may not be able to make investments, continue their operations, or even set up a business.

With these challenges to lending and obtaining equity finance from investors, SMEs' owners can try to finance themselves by using their own contributions and retained earnings. Private equity is one of the available options, as this can be done in unpublished capital markets, where equity can be traded to private equity investors including venture capitalists, corporate ventures, and angel investors (Fenn, Liang, & Prowse, 1997; Prowse, 1998). Traditionally, many SMEs' owners access debt finance as this approach offers bank overdraft facilities for daily corporate activities and it enables SMEs to maintain credit trustworthiness with suppliers (Ta, Esper, Ford, & Garcia-Dastuge, 2018). Moreover, in capital markets, accessing equity finance offers ownership and management control. The effects of adopting equity finance in family firms relate to financial decisions, conflict of interest, valuation problems and power struggles (Sacristán-Navarro & Cabeza-García, 2019).

From an entrepreneur's perspective, moving from a traditional approach to using private finance is associated with some behavioral dispositions of business owners. The research into how SMEs engage in the private equity sector is limited (Seet, Graves, Hadji, Schnackenberg, & Gustafson, 2010). It has been suggested that an empathy gap between SMEs' owners and private equity investors is the reason for SMEs' owners' reluctance to seek private equity investors. An empathy gap is an inability to recognise the difference in the cognitive frameworks that inform the ways in which others make decisions (Montinari & Rancan, 2018). A focus on dispositional elements is not generally used to examine how businesses seek finance, as many studies use financial theories, for instance pecking order theory, trade-off theory and agency cost theory to explain how businesses seek for finance (Serrasqueiro & Caetano, 2015; Zeidan, Galil, & Shapir, 2018). The mixture between equity and debt for financing purposes is at the very heart of capital structure theory (Modigliani & Miller, 1963; Myers, 1977). By contrast, the current study does not use finance theory, but adopts the Theory of Planned Behavior (TPB) to investigate how behavioral factors impact on the intention to use self-financing options, particularly in terms of private equity and retained earnings. While TPB is already adopted to explain behavioral factors affecting financial decision making in SMEs (Al Balushi, Locke, & Boulanouar, 2018; Koropp, Kellermanns, Grichnik, & Stanley, 2014; Sudarsono, 2015), these studies focus on SMEs in a single country context, then leaving the gap for exploring the impact of behavioral factors on SMEs in multiple countries as a whole. This study breaks new ground by its focus on non-financial factors in SMEs across 29 countries in Eastern Europe and Central Asia to examine debt and

equity and can therefore make a useful contribution to the literature. The study uses partial least square structure equation modelling (PLS-SEM) to analyze the micro-firm data collected from the Business Environment and Enterprise Performance Surveys (BEEPS).

The study contributes to finance literature in three ways. First, the study investigates the non-economic factors influencing private financing including retained earnings and private equity. Second, the study broadens the understanding of financial decision-making from the perspective of SMEs' owners, and discusses that by adopting non-financial theory. Third, the study extends the samples by further investigating SMEs across different countries, thus provides a robust evident on prior studies.

## **2. Research hypotheses**

A number of previous studies state that difficulties about the opacity of their financial health and the limitations of business size are the major challenges facing SMEs seeking financial support (Berger, Klapper, & Udell, 1999; Berger & Udell, 2002). The inability to access finance from capital markets confines many SMEs, particularly young firms, to obtaining financial support from family and friends (Ang, 1991), and motivates SMEs' owner to develop innovative projects for getting financial support from formal institutes (Wellalage & Fernandez, 2019). Equity financing of SMEs is relatively new for many unlisted SMEs, particularly those whose business models have less potential to attract public investors. Schäfer, Werwatz, and Zimmermann (2004) found that a young high-tech firm that receives equity financing may face significant financial risks, and this reduces the possibility of obtaining private equity financing. However, selecting a source of finance is not only dependent on how the source is offered, but also relates to the attitude of SMEs' owners on capital structure decisions (Al Balushi et al., 2018; Matthews, Vasudevan, Barton, & Apana, 1994). Prior research mentions that trust in private equity investors could reduce the boundary between SMEs and the private equity sector (Howorth, Westhead, & Wright, 2004; Seet et al., 2010). Concerns about losing ownership could drive many SMEs owners to access debt finance from financial institutions (Abereijo & Fayomi, 2007; Fama & French, 2002; Holmes & Kent, 1991). These concerns include anxiety about losing clients, assuming a short term perspective, SMEs' owners' lack of professionalism, unsatisfactory transparency and control issues (Seet et al., 2010). Financial decision-making also involves risk-taking propensity and a sense of responsibility about adding value for public investors as well as the dilution of ownership.

From literature, the study hypothesizes that SMEs are demonstrating more favorable attitudes toward private finance. Correspondingly, the first hypothesis is developed:

*H<sub>1</sub>: The attitudes of SMEs' owners are associated positively with the intention to use private finance*

The intention to select what to do or not do is driven by various factors. One significant influence on decision-making is the impact of social pressures on thinking and beliefs (Ajzen, 1991). In this respect, many SMEs' owners follow the approaches used by their parents and family members in business-related activities (Chang, Memili, Chrisman, Kellermanns, & Chua, 2009). Intentions and behavioral responses are also governed by community norms (Cialdini, Reno, & Kallgren, 1990). Previous studies have discussed how subjective norms influence SMEs' choices about accessing finance (Al Balushi et al., 2018). The relationship between subjective norms and entrepreneurial intention to seek finance has been examined by Cholil (2015); Yanto, Handayani, Solikhah, and Mula (2016); Din and Nuh (2019) and Turyahikayo (2015). These authors mention that financial decision-making is driven by SMEs' owners' beliefs about the use of private equity and internal funds. One such view is that the use of external consultants, auditors and bank contacts will be an advantage when using private equity funds (Pennings, Candel, & Egelkraut, 2003). Social influences also impact on the intention to choose self-funding. SMEs' owners will be positive toward private financing activities if they feel their family, friends and other important entities agree and support the use of private equity (Brettel, Breuer, Espel, & Abedin, 2009; Dreux IV, 1990). Based on this literature, the second hypothesis is developed:

*H<sub>2</sub> The subjective norms of SMEs' owners are associated positively with the intention to use private finance*

Another influence on the investment behaviour of SMEs' owners is perceived behavioral control. Perceived behavioral control explains the behaviour of individuals in terms of performing or not performing according to their beliefs. Perceptions about one's ability to control an action may enhance self-confidence about performing such an action. By contrast, if individuals believe that an action will be difficult to control, they will be more likely to desist from such behavior. (Ajzen, 1991). This concept is relevant for understanding the intention of SMEs' owners to seek other financing options by issuing private equity as their main funding source. Commonly,

equity finance could be limited to listed companies which are relatively large and controlled by various type of stakeholders while accessing bank loan may be not easy for many SMEs, especially, those who have low credit trustworthy. When funding is not available from more traditional sources like public companies or bank loans, if SMEs' owners believe that funding from other sources could be beneficial to their business, they may be willing to seek private equity funding. In this regard, research suggests that startup firms' founders realize that there are additional advantages, for instance, mentor support, knowledge and resource-sharing from venture capitalist and angle investors. SMEs' owners could be more inclined to use private equity if they can eliminate the problems occurring between SMEs' owners/ founders and private investors. Particularly, the issues regarding misunderstandings in contracts and due diligence need to be resolved (Seet et al., 2010), so they can have more control of private equity investors.

Additionally, if SMEs' owners can deal with the requirements from finance supporters or private investors, they could be more willing to seek private equity (Seet et al., 2010). Based on the literature, the third hypothesis is developed:

H<sub>3</sub>: Perceived behavioral control of SMEs' owners is positively associated with the intention to use private finance

From the hypotheses, figure 1 demonstrates the conceptual model of this study.

**Insert Figure 1 here**

### **3. Research methodology**

#### **3.1 Data and Samples**

The micro-firm data was collected in 2013 from the Business Environment and Enterprise Performance Surveys (BEEPS), and the samples are SMEs operating in Eastern Europe and Central Asian countries. This survey was developed by the World Bank and the European Bank for Reconstruction and Development for the purpose of providing key indicators about matters that are significant for business including finance, informal payments and other SMEs' components. Behavioral factors relating to the intention to use private finance were ascertained from various indicators that emerged from responses to each question. These questions mainly refer to the difficulties of using debt finance. The current study analyses 5,943 SMEs by selecting the questions that are related to private equity and internal funding in SMEs.

### 3.2 Measurement of variables

The dependent variable is the intention to use private funding to operate SMEs. A private fund refers to retained earnings that are generated from accumulated net income, once all costs and expenses have been deducted. These indicators were accessed from responses to the survey question that inquired about the percentage of internal funds and retained earnings used in SMEs. Another aspect of private finance is equity finance generated from shares distributed to private investors outside the capital markets. This indicator was accessed from responses to the survey questions that inquired about the percentage of issued new shares.

The independent variables are the factors that reflect behavioral intention to use private finance. These factors incorporate attitude, subjective norms and perceived behavioral control. Firstly, attitude was accessed by considering the indicators of the extent of SMEs' owner's favourable responses to the notion of using private finance. These indicators showed their favourable and unfavourable attitudes to using debt finance through an overdraft facility and a saving/checking account.

The second behavioral factor relates to subjective norms. These stem from familiar patterns of usage by SMEs which may be influenced by their intimate connections or current financial arrangements. The current study used responses to survey questions about experience of obstacles to accessing debt finance and whether SMEs' owners applied for loans or credit loans from financial institutions. The requirement of collateral needed for getting support from these financial institutions could also affect SMEs' owners' attitudes to seeking debt finance and the intent to use private finance.

Lastly, behavioral intention to use private finance relates to perceived behavioral control. This study uses two items accessed from the survey responses to indicate the degree of perceived behavioral control of SMEs' owners when seeking finance. The first indicator represents the perceived ability of SMEs to pay back loans and credit loans. SMEs' owners may perceive that a shorter repayment period is less risky and therefore increase their ability to control failure. Another indicator is the number of loans or lines of credit applications that were rejected. A smaller number of rejections could indicate trust in SMEs' creditworthiness regarding the ability to pay a loan back. The perceived problem of lack of their control over their ability to pay back a loan may make



male SMES' owners unwilling to use equity finance. Table 1 presents the measurement of latent variables.

**Insert Table 1 here**

### **3.3 Control variables**

A number of control variables are employed to test the hypotheses. The study includes firm age and firm size as control variables as both variables have been found in prior research to have an effect on financing (Dong & Men, 2014; Kira & He, 2012; Uyar & Guzelyurt, 2015). Two owner characteristics, age and education, are also included as control variables. Based on past research, these characteristics of SMEs' owners influence the behavior and decision-making of owners and have an effect on firm strategy, corporate activities and performance (Abatecola & Cristofaro, 2018; Eniola, 2018; Kaur & Singh, 2018).

### **3.4 Data analysis and hypothesis testing**

This study adopts PLS-SEM to examine how behavioral factors are associated with an intention to use private finance. PLS-SEM is appropriate to examine the factors that impact on the private financing decisions of SMEs. As behavioral factors relating to financing decisions are difficult to define, measurement indicators are used to demonstrate those behaviors. The structural model tested is presented in Figure 2. To examine the significance of the path coefficients, the study employs bootstrapping using 1000 iterations.

## **4. Empirical findings**

### **4.1 Descriptive statistics**

Table 2 presents the descriptive statistics. On average, 58% of the sample are small-sized firms whereas about 42% of the sample are medium-sized firms. The majority of SMEs' owners are males while about 34% are females. From the sample, internal funding was shown to be the main source of finance. Only 4.7% of the finance comes from private equity. Other sources of finance that are popular with SMEs are family, friends and relatives.

**Insert Table 2 here**

### **4.2 Evaluation of measurement model**

The reliability and validity of the measurement model was checked by evaluating factor loading, composite reliability and average variance extracted (AVE). Construct reliability is

evaluated using composite reliability. Factor loading of each indicator above 0.60 is deemed acceptable, and considered as satisfactory and should not be removed from the measurement model (Hair Jr, Hult, Ringle, & Sarstedt, 2016). AVE was used to evaluate convergent validity of each latent variable. AVE of greater than 0.50 is considered to indicate a sufficient degree of convergent validity (Bucic, Ngo, & Sinh, 2017; Hair Jr et al., 2016). Table 3 presents the results of the evaluation of the reliability and validity of measurement models. The values for various test statistics are in line with the prescriptions, with composite reliability varying between 0.747 and 0.808 indicating that the constructs employed have acceptable levels of internal consistency reliability.

**Insert Table 3 here**

Discriminant validity was measured using the Fornell-Larcker criterion (Table 4), which suggests that a construct should have more variance shared with its indicators than with other latent constructs (Bucic et al., 2017). Statistically, the AVE of each latent construct should be greater than the latent construct's highest squared correlation with any other latent construct (Hair Jr et al., 2016; Southern and Ghazali, 2012).

**Insert Table 4 here**

#### **4.3 Evaluation of structural model**

Multiple assessments are employed to evaluate the quality of the structural model, including the measure of R-square, significance of path coefficients, and Stone-Geisser's Q2 measure of the predictive ability of the structural model. The t-statistic of the path coefficient is employed to test the hypotheses, while the absolute Goodness-of-Fit (GoF) measure is used as the global indicator for the goodness of fit of the structural model (Chiew et al., 2019; Azim, 2012). Finally, effect size for each latent variable is checked. Table 5 reports the results for the evaluation of the structural model. The value of R2 (0.135\*\*\* and) is significant; the absolute goodness of fit indicator is "medium" and acceptable (0.207). All these evaluations suggest that the structural model has a high degree of validity.

**Insert Table 5 here**

## 5. Results and discussion

This study investigates the intention to adopt private finance based on retained earnings and private equity by SMEs across 29 countries in Eastern Europe and Central Asia. The results of the hypotheses testing are reported in Table 6. Findings from the PLS algorithm indicate that behavioral factors which incorporate attitudes, subjective norms and perceived behavioral control explain 13.5% of the variance in the intention to use private finance. Empirical findings show that subjective norms have the strongest effect on the intention to use private finance (coefficient at 0.063, T-statistics at 6.979), followed by perceived behavioral control (coefficient at 0.150, T-statistics at 17.572). Subjective norms and perceived behavioral control of SMEs' owners are associated significantly with the intention to adopt private finance. Correspondingly,  $H_2$  and  $H_3$  are supported. It is also found the intention to adopt private finance is significantly affected by the attitude of SMEs' owners (coefficient at 0.063, T-statistics at 6.979). Hence  $H_1$  is supported.

The findings are consistent with some previous studies. A number of SMEs, particularly start-up firms, distribute their equities to private equity investors, instant venture capitalists, corporate venture capitalists and angle investors (Abereijo & Fayomi, 2007). These private equity investors look for SMEs having a business growth model which is scalable (Picken, 2017). Although innovation and technology support SMEs to develop such business models and boost up corporate performance (Kijkasiwat & Phuensane, 2020), behavioral factors relating to financial decision-making are also involved (Al Balushi et al., 2018). Attitudes toward the use of debt finance and having check accounts are associated with the intention to use private finance. SMEs' owners who are risk averse are more likely to use internal funds. In SMEs, issuing private equity relates to how financial gaps, empathy gaps and knowledge gaps are resolved (Seet et al., 2010). Minimizing the financial gaps between how much SMEs' owners are looking for and how much private investors are willing to invest could increase the proportion of the use of equity finance by SMEs. The demand and supply of the parties involved should match each other (Ljungqvist, Richardson, & Wolfenzon, 2017). If SMEs' owners are positive and confident about their retained earnings and their business has the ability to generate the required amount of income, they could be more willing to use private finance rather than external finance. The empathy gaps relating to control and management can be eliminated. This is beneficial to SMEs as it offers more financial opportunity for SMEs as well as other resources such as knowledge sharing between SMEs' owners and professional investors or angle investors (Fenn et al., 1997). Synergy between private

equity investors and SMEs' owners and startup founders could offer reciprocal advantages to all entities (Widyasthana, Wibisono, Purwanegara, Siallagan, & Sukmawati, 2017).

The results of the current study are consistent with the work of Koropp et al. (2014) and Badaj and Radi (2018). A relationship was found between perceived behavioral control and the intention to use private finance by SMEs. The intention to use private finance by SMEs may also be related to the ability to pay back loans to financial institutions and to prior experience of SMEs' owners of getting loan applications rejected by banks

**Insert Table 6 here**

**Insert Figure 2 here**

## **6. Implications and Conclusion**

This study examines whether behavioral factors of attitude, subjective norms and perceived behavioral control affect the intention to adopt private finance by SMEs. It was found that SMEs' owners' beliefs about financial decisions and their experiences of trying to access finance influence owners as to whether or not they choose to use internal funds to run their businesses. Their beliefs and emotions affect their opinions about issuing private equity and distributing it to private investors.

The findings on the influence of non-economic factors on financial decision-making needs to be acknowledged by policy makers and considered when trying to improve financial systems. The considerations may assist the revision of unclear regulations and legalities, that restrain these financing activities and transfer of funds, in a manner that supports demand and supply for both finance seekers and finance providers. Behavioral factors are subjective and affect the financial decision of individual business owners, and eventually affect the whole financial economy. Therefore, they should not be ignored.

The results of this study are based on data collected from BEEPS which focus on SMEs across 29 countries in Eastern Europe and Central Asia. Future study could explore SMEs in different setting in order to improve the generalizability of the findings. Other behavioral factors relating to private finance can be added to develop the full model of TBP as suggested by Ajzen (1991). This further research could increase understanding of factors that influence the intention to use various private finance methods.

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**Table 1** Operational of constructs

<b>Latent variables</b>	<b>Factors</b>	<b>Indicators and explanation</b>
Intention to use private finance	Internal funds/ retained earnings	IPV1: Percentage of using internal funds and retain earnings
	Owners' contribution or issued new equity shares	IPV2: Percentage of issuing new equity shares
Behavioral intention to use private finance	Attitude	A1: The establishment of an overdraft facility A2: The establishment of a saving/checking account
	Subjective norms	SN1: The obstacle of accessing finance SN2: Application for loan/credit SN3: The requirement of collateral
	Perceived behavioral control	PBC1: The number of months to pay off loan/ credit loan PBC2: The number of loan rejections



**Table 2** Descriptive statistics

<b>Variable</b>	<b>Observation</b>	<b>Mean</b>	<b>STD</b>	<b>Min</b>	<b>Max</b>
Small sized firm	13,430	0.5812	0.4934	0	1
Medium sized firm	13,430	0.4188	0.4934	0	1
Female owners	13,430	0.3333	0.4714	0	1
Internal fund/Retained earning	5943	72.93381	37.33412	0	100
Private equity	5943	4.704162	17.3283	0	100
Debt finance	5943	16.12151	30.79947	0	100
Trade credit	5943	4.022731	15.54683	0	100
Others (friend, family, and relative)	5943	2.218118	12.1913	0	100

**Table 3** Assessments of reliability and validity of measurement model

Latent variable	Indicators	Loadings	Composite Reliability	AVE
Attitude (A)	A1	0.792	0.808	0.678
	A2	0.854		
Subjective norm (SN)	SN1	0.758	0.747	0.698
	SN2	0.739		
	SN3	0.612		
Perceived behavioral control (PBC)	PBC1	0.754	0.767	0.623
	PBC2	0.823		

**Table 4** Fornell-Larcker criterion analysis for checking discriminant validity

	Attitude	Subjective norm	Perceived behavioral control	Private finance
Attitude	0.824			
Subjective norm	0.305	0.706		
Perceived behavioral control	0.346	0.301	0.789	
Private finance	0.194	0.326	0.250	0.810

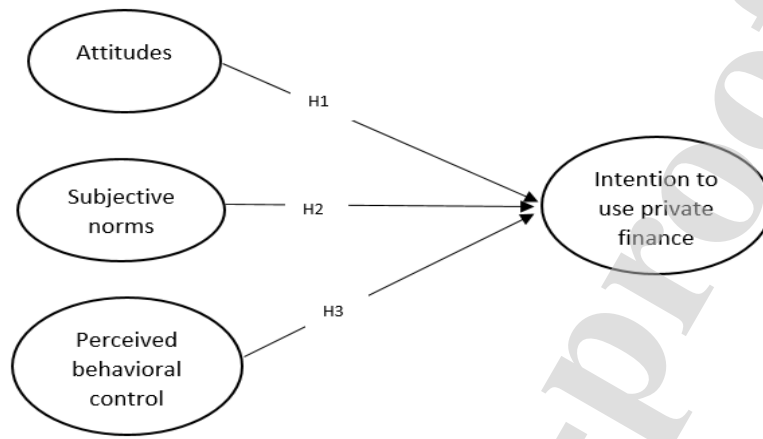
**Table 5** Structural model analysis

Latent variables	Effect size (f <sup>2</sup> )	VIF
A	0.024	1.196
SN	0.068	1.158
PBC	0.022	1.193
R-Squared (R <sup>2</sup> )	0.135	
Sample size	5983	

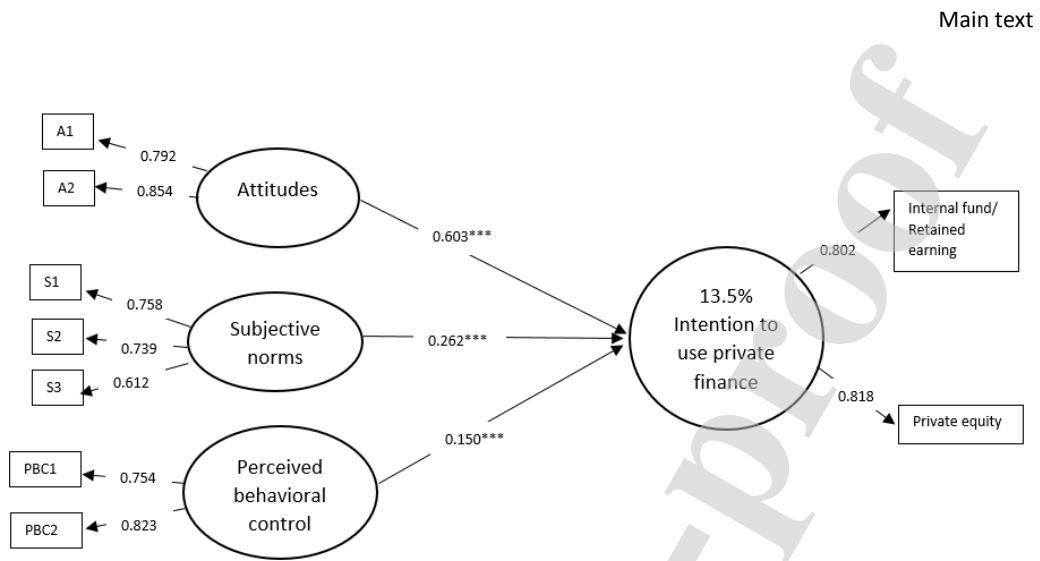
**Notes:** A – Attitude, SN –Subjective norm, PBC – Perceived behavioral control

**Table 6** Path coefficients and hypothesis testing

Relationship	Coefficients	T- Statistics
A -> PF	0.063***	6.979
SN -> PF	0.262***	20.188
PBC -> PF	0.150***	17.572



**Figure 1** Conceptual framework



**Figure 2:** Testing the structure model and hypothesis testing: PLS-SEM Path Diagram