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Article

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Stock market participation in less developed countries: a perception-based evidence from Uganda

Zainabu Tumwebaze^{1*}, Laura Orobia¹, Juma Bananuka¹, Caroline Bonareri Tirisa¹ and Aminah Balunywa¹

Abstract: This study aims to examine the contribution of participation costs (floatation costs, compliance costs and marketing costs) to stock market participation using evidence from Uganda—a developing country. Using a cross-sectional and correlational research design, data were collected through a questionnaire survey of 219 small and medium enterprises. We used correlation coefficients and linear regression to test our hypotheses. The hierarchical regression analysis results suggest that participation costs such as floatation costs, compliance costs, and marketing costs are significant predictors of stock market participation while firm age and firm size (control variables) are non-significant. The study uses a cross-sectional research design. The major weakness with cross-sectional research designs is that, it is difficult to monitor changes in behavior over time. To the practitioners and policymakers, this study suggests that the Ugandan Capital Market Authority should review the costs (floatation costs, compliance costs, and marketing costs) involved in accessing finance through the stock exchange. This will go a long way in making the stock market an alternative financing option, especially in this era of rising costs of capital provided by other financial intermediaries. The study examines the behavior of the elements of participation costs in explaining stock market participation, an aspect that has not been adequately highlighted in previous studies. Results indicate that among elements of participation costs, floatation costs are more significant, followed by compliance costs. Market costs turnout to be the least participation cost in explaining stock market participation.

Subjects: Business, Management and Accounting; Entrepreneurship and Small Business Management; Small Business Management

Keywords: Stock market participation; floatation costs; compliance costs; marketing costs; Uganda

1. Introduction

The continuous outcry for funds availability among firms amidst the presence of stock markets has attracted the attention of academicians worldwide and a number of empirical studies have been undertaken (see, Dash & Mahakud, 2015; Dutta & Mukherjee, 2015; Kaur & Vohra, 2017; Miralles-Quirós et al., 2017; Sivaramakrishnan et al., 2017; Tsagkanos, 2017; Tumwebaze et al., 2014) with a call for further studies (Dutta & Mukherjee, 2015; Sivaramakrishnan et al., 2017; Tumwebaze et al., 2014). Investigating the reasons as to why firms in developing countries shy away from stock market participation on both aggregate and individual level is very pertinent given that stock

exchange markets are a vital source of capital to firms for growth and expansion through sale of shares to the public (Tumwebaze et al., 2014). Such markets lower costs of mobilizing savings and thus facilitate investments, which in turn contribute to a country's economic development (Kaserer & Schiereck, 2007; Tadashi, 2008). Stock markets also promote better management and corporate governance in firms as well as encouraging truthful and full financial disclosure of information. Furthermore, movement in share prices acts as an indicator of the trend in the economy, where by rising or stable prices are signs of a stable economy (Alam et al., 2011; Sejjaaka, 2011; Zuravicky, 2005). Notwithstanding their significance, extant literature continues to report low stock market participation rates for instance, Winful et al. (2013) state that, "stock markets in Africa compared to those in the developed countries have fewer market participants, are less sophisticated and have less skilled investment analysts," (pg. 1).

With reference to Uganda, most private firms that are privy to the benefits of stock exchanges seem to have avoided the stock market as means of raising capital (Sejjaaka, 2011) for instance, only 17 companies are listed on the Uganda Securities Exchange (USE, 2020) comprising of 9 locally listed and 8 cross-listed from Nairobi Stock Exchange (Kenya). The stock market in Uganda is regulated by the Capital Markets Authority (CMA), which was established in 1996. In 1997, the CMA licensed the Uganda Securities Exchange (USE) and until today, CMA has not licensed any other stock market. At USE, the first company to be listed was Uganda Clays Limited in 2000 and until 2018, USE has only attracted 17 companies. Uganda's market capitalization stood at Ush27.4 trillion (\$9.4 billion) in 2015 and this includes both locally listed and cross-listed companies. USE's market capitalization is dominated by East Africa Breweries Ltd (EABL) at 26%, Equity Bank at 23%, Kenya Commercial Bank (KCB) at 20.32% and Stanbic Bank Uganda (SBU) at 6.8%. These four companies take up 76% of the net worth of the USE's market cap, and are the largest asset base of the 16 listed companies on the market. Considering activity on the Nairobi Securities Exchange (NSE), it has 66 companies listed and with market capitalization of \$25billion. Clearly, the market size and activity on the USE are still low and this raises questions as to why there is low stock market participation in Uganda. The USE has the main investment market segment and the Alternative Investment market segment. This was done to cater for both the small and medium enterprises and the large companies. This is seen as an effort by Government of Uganda to promote the stock market. Further, the Government of Uganda amended the domestic tax laws and section 118 of the Income Tax Act of 2018 provides for a withholding tax rate of 10% on payment of dividends and this is different from the 15% withholding tax rate applicable to the none listed resident companies.

Various explanations have been put forward for the limited stock market participation puzzle. For instance, Williamson and Williamson (1994) and Allen and Gale (1994) suggest that liquidity needs and transaction costs deter stock market participation. Sivaramakrishnan et al. (2017) document that attitudinal factors (perception of regulator, risk avoidance and hassle factor) and financial literacy have a significant association with stock market participation. Halliassos and Bertaut (1995) suggest that borrowing constraints and minimum investment requirements also reduce market participation. Some scholars suggest that the fixed cost of entering the stock market for the first time is too high to encourage participation (Guiso et al., 2008; Hong, Kubik & Stein, 2004; Kaserer & Schiereck, 2007). Others assert that limited participation is explained by firm characteristics and individual characteristics (Bekaert et al., 2001; Karolyi et al., 2004; Rajan & Zingales, 2003). Kaur and Vohra (2017) argue that women are more into investment decisions given that they are now more educated than before and this implies that women entrepreneurs may list their shares than the male counterparts. Kaur and Vohra (2017) further document that financial advisors are likely to deal with both with men and women, but as far as women are concerned, financial advisors are of the view that they need greater assistance to understand financial matters. To the researchers, no previous studies have examined the contribution of participation costs in terms of floatation, compliance, and marketing costs on stock market participation using evidence from small and medium enterprises in a developing country like Uganda. In this study, we investigate the contribution of participation costs in explaining stock

market participation by small and medium firms in Uganda; with a special emphasis on the behavior of floatation, compliance, and market costs. Our aim is achieved through a questionnaire survey of 219 small and medium enterprises (SMEs) when we elicit responses from general managers and accountants of SMEs. The present study results suggest that floatation, compliance, and marketing costs are significant predictors of stock market participation.

This study offers several contributions to research on participation costs and stock market participation. Our study results contribute to the already existing literature on the link between participation costs and stock market participation (Kaserer & Schiereck, 2007; Tadashi, 2008) by providing the effect of each element of participation cost on stock market participation. Results indicate that among participation costs, floatation costs are more significant in explaining stock market participation among SMEs, followed by compliance costs and then market costs. Regulators of the stock markets, for example, in Uganda, the capital markets authority need to review policies and participation costs if they are to attract more firms on the stock market. Such policies may include relaxing fees requirements by the stock market for small businesses that make decisions for initial public offering (IPO). The non-monetary requirements for IPO such as the disclosure requirements may also be relaxed. The Capital Market Authority launched an alternative investment market segment (AIMS) currently known as the growth investment market segment (GEMS) tailored for small- to medium-sized high-growth companies that could not meet the stringent listing requirements for the main segment in 2009. Although participation costs under the GEMS is slightly lower than that of the main segment, SMEs have not utilized that platform. Also, previous studies (Kaserer & Schiereck, 2007; Tadashi, 2008) are common in developed countries with well-established stock markets. There is insufficient empirical evidence on the same in developing countries such as Uganda. Moreover, given that the stock exchange market in Uganda is still very small, we believe more studies in this area will help boost the volume of trade and market capitalization.

The rest of the paper is structured as follows. The next section is a literature review where the theoretical foundation is discussed and hypotheses developed, section 3 discusses the methodology and section 4 presents results and discussion. The final section is a summary and conclusion.

2. Literature review

2.1. Theoretical foundation

This study utilizes traditional finance theories which include the trade-off theory and the pecking order theory to explain the stock market participation among SMEs in Uganda. Trade-off theory as suggested by Modigliani and Miller (1958) was developed from the debate of Modigliani-Miller debate on capital structure. The theory assumes that the financing decision of a firm is made after an evaluation and analysis of costs and benefits of various options of financing (Ahmadimousabad et al., 2013). In that case, the internal sources of finance such as the retained earnings and the ordinary stockholders equity are utilized first. The next option would be debt financing and possibly equity financing obtained from the stock markets. For the case of Uganda, businesses largely rely on ordinary share capital contributed by the initial proprietors and the next option for financing is the bank loan. Little attention is paid to the stock markets. In this study, we argue that if companies would consider IPO, they would be able to access cheaper sources of financing as compared to bank loans. The optimal capital structure is acquired by firms by trading off the costs of debt and equity against their benefits.

The pecking order theory as suggested by Myers (1984) points out a hierarchy of capital structure decisions made by individual firms. The theory assumes that in financing decisions firms prefer internally generated financial resources to external sources of finance. The theory further assumes that perfect firms first utilize retained earnings, issue debt and lastly it would issue equity to raise finance for its operations (Myers, 1984). The pecking-order theory suggests that the firms always prefer debt over equity unless they are working near their debt capacity

(Singh & Kumar, 2012). Therefore, it can be noted that firms can only opt to issue equity when they have exceeded their debt capacity. Myers (1984) explains that firms raising capital go through the pecking order because of the financing costs associated with raising finance. These costs include the transaction costs related to new issues, information asymmetry costs resulting from management's superior information about the company's future prospects and the value of its risky securities. According to Farma & French (2002), companies are forced to issue equity for new investments when their retained earnings and the safe debt have been fully exhausted.

Stock market participation puzzle stems from the fact that most potential investors do not invest in stocks despite the significant risk premium and gains from diversification involved (Kaserer & Schiereck, 2007; Xia, 2001). On the one hand, traditional finance theories posit that investors' willingness to take financial risks depends simply on investment opportunities and risk aversion (Sharpe, 1964). On the other hand, more advanced dynamic portfolio choice models allow for changing investment opportunities, wealth, and transaction and information costs to affect investor financial decisions (Brennan et al., 1997; Xia, 2001). Nonetheless, fixed entry costs also referred to as participation costs have been the main thesis in the literature to resolve the puzzle. The models suggest that with entry costs, investors benefit from stock market participation only if the (certainty equivalent) expected excess return from participation exceeds the fixed cost. Since the gain increases with wealth, entry costs make strong predictions about the relation between wealth and the probability of investing in stocks. In particular, investors with wealth below a certain threshold do not enter the stock market, those above it do.

Different authors categorize costs of going public differently. For instance, Ritter (1987) divides total costs of going public into "initial underpricing", "the gross underwriter spread", and "other expenses" that include items such as legal, printing, and audit fees. Hansen, Fuller, and Janjigian (1987) add a fourth expense as over-allotment option. Some scholars divide total costs of going public into "floatation costs" (e.g., IPO initial underwriting fees and initial listing fees); "compliance costs" (e.g., adherence to disclosure requirements, corporate governance rules and other ethical requirements); and "other expenses" that include advertising, development and printing of prospectus, and professional fees. Kaserer and Schiereck (2007) maintain the first two names but renames the third category as administrative expenses.

Participation costs involve costs directly incurred during the process of taking the company public like registration and underwriting fees and the indirect pre- and post-IPO such as annual accounting information disclosure costs, certification, legal fees, auditing fees, and stock exchange fees (Meluzin et al., 2018). Further, Meluzin et al. (2018) suggested that IPOs are associated with indirect cost resulting from time spent by senior management in preparations of the IPO than focusing on usual business activities.

In this study, we take participation cost to comprise of floatation costs, compliance costs, and marketing costs (printing of prospectus, advertising costs and dealer (broker) commission).

2.2. Definition and significance of small and medium firms

Small and medium firms are the emerging private sector in most developing countries and thus form the base for private sector led growth (Ciubotariu, 2013; Orobia et al., 2013). The presence of such firms mean creation of new enterprises, new commercial activities, and new economic sectors, which in turn have a positive multiplier effect on the economy. They generate jobs for others; increase research and development; produce goods and services for society; introduce new technologies and improve or lower cost outputs; and they earn foreign exchange through export expansion or the substitution of imports. Their presence is crucial not only for improving the number of employment opportunities for the poor but also the variety and quality. While the importance of the small and medium firms is acknowledged internationally, defining such firms is a challenging task, as every country has its own definition. There is no universally accepted definition of small and medium firms to date (IFAC, 2011). Such firms differ in their levels of

capitalization, sales, and employment (Mahembe, 2011). The United Nations Conference on Trade and Development (UNCTAD) classifies firms employing 5 to 500 persons as SMEs (Neelamegham, 1992). The Government of Uganda classifies SMEs as business firms employing 5–50 people (small scale) and 51–500 people (medium scale) (Kasekende & Opondo, 2003; Schiffer & Wedder, 2001; Okello-Obura et al., 2008). According to Uganda Bureau of Statistics (2011), businesses are categorized as small and medium if the annual turnover is above Uganda shillings five million but with number of employees less than fifty.

2.3. Financing constraints: Going public as an alternative

Extant literature indicates that despite the widely acknowledged role of small and medium firms in fostering economic growth and development, they have continued to face a variety of constraints (Ekanem, 2010; Orobia, et al., 2013). One of the frequently reported major difficulties faced by small and medium is access to finance (Ekanem, 2010; Kazooba, 2006). Most small and medium firms, especially in developing countries, suffer from lack of access to funds from both the money and capital markets (Kazooba, 2006; Orobia, et al., 2013). This is due in part to the perception of higher risks resulting in high mortality rate of the business, information asymmetry, inadequate collateral, absence of, or unverifiable history of past credit(s) obtained and lack of adequate historical records of the company's financial transactions. As such, small and medium firms rely on trade credit from their suppliers, micro-credit or retained earnings, which are not only insufficient but also unpredictable (Ekanem, 2010). The few who manage to access formal external finance use bank funding (loans or overdrafts). Finance is the bloodline of any size/kind of business. The ability of small and medium firms to access finance is important for funding business investment, ensuring businesses reach their growth potential and for facilitating new business start-ups (Ekanem, 2010; Orobia, et al., 2013). However, lack of finance can constrain cash flow and hamper businesses' survival prospects.

2.4. Participation costs and stock market participation

Companies participating in stock markets are relatively large, mainly because they can afford to meet the minimum of stock market participation costs such as reporting costs as well as initial and ongoing listing fees (Oxera, 2006; Pagano et al., 1998). According to Lutwama (2006), the initial and subsequent costs associated with accessing the capital markets limits firms' decision of raising finance through the stock exchange. Tadashi (2008) argues that the most critical costs element in a stand-alone public offering is the uncontrollable opportunity costs in complying with disclosure requirements. Previous studies show that a participation cost can account for non-participation in stock markets (Haliassos & Michaelides, 2003; Gomes & Michaelides, 2003; Paiella, 2007; Vissing-Jorgensen, 2002). Sturla and Oyvind (2011) argue that private placements can be used to reduce moral hazard and adverse selection costs and offset high issue cost. Additionally, the high costs are partly attributed to a large number of market agents in the IPO process with some having overlapping functions according to the study by World Bank (2002) in Kenya. Meluzín et al. (2018) investigated why companies stay Private specifically examining the determinants for IPO using evidence from Poland and the Czech Republic, they found that time and costs associated with the IPO process were significant factors in determinants of the IPO decision. Meluzín et al. (2018) further noted that companies in the Czech Republic did not attempt issuing their shares on the stock market due to the costs involved in the IPO process, however this was not the case for Poland respondents. This implies that the determinants of stock market participation differ in different stock markets and jurisdictions. Kwabi and Boateng (2021) studied the effect of insider trading laws and enforcement on stock market transaction cost using panel data from 32 countries for the period 2001–2015 noted that there is need for cost-effective and price-efficient technological innovations in the stock market which are able to reduce the transactions costs. The participation costs determine that the level of both the operational and informational efficiency of a given stock market.

2.5. Floatation costs and stock market participation

Floatation costs refer to costs directly incurred in by a firm in the process of going public, which include underwriting fees and other initial listing costs. While underwriting fees regularly are disclosed in the prospectus, it is not that clear how to get reliable information on the other cost items. According to Bairagi and Dimovski (2012), the underwriter spread constitutes the top portion of the direct costs of new securities issuance. Bairagi and Dimovski (2012) assert that underwriting fees as a percentage of the proceeds raised by the issuing firm are more significant with the IPO compared to seasoned stock offerings. In the study of Butler et al (2005), the underwriting costs account for 1 to 10% of the gross proceeds while that of (Lee and Masulis, 2009) these costs broadly ranges from 3 to 8%. Companies issuing stock on the USE are required to pay Application fee of 200 currency points, Re-submission of application for listing 50 currency points, Initial listing fees of 0.2% of the value of the securities to be listed subject to a minimum of 200 currency points, additional listing fee of 0.2% of the market capitalization of the additional securities to be listed and Annual listing fees of 0.05% of market capitalization of the issuer subject to a minimum of 200 currency points and a maximum of 5,000 currency points which is calculated on the basis of a 12-month average market capitalization (USE, 2012). The study on demutualization of the USE reported that the fees for entry to the USE were 41,600 USD; 20,000 USD to TZ and 470,588USD to NSE. The level of the development of the Securities Market determines the fees that should be charged, undeveloped markets charge less to attract market players (EAC, 2014). Thus, we hypothesize that:

H₁: SMEs that perceive the floatation costs to be affordable are most likely to participate in stock market.

2.6. Compliance costs and stock market participation

Compliance costs refer to the costs incurred by a firm in the process of complying with the corporate governance and disclosure requirements by the capital markets (Tadashi, 2008). As suggested by Yosha (1995), among others, the increased disclosure of inside information required from public firms serves as an additional cost. Razali, Brahmana and Sinnasamy (2016) posits that the more information disclosed by the firm, the higher the demand for its securities which lowers its cost of capital. Razali, et al (2016) investigated the association between corporate disclosure and cost of equity using evidence from 248 companies listed on the Bursa Malaysian. Their results indicated that level of information disclosed in annual reports had a negative and significant effect on the cost of equity capital. Listed firms in Uganda are expected to have an audit committee in place which in turn appoints an internal auditor (Kibirango, 2003). The implication of such a requirement is that once a firm is listed, it becomes mandatory for such a firm to establish an audit committee and this will attract costs in terms of sitting allowances. In the event that an audit committee appoints an internal auditor, more costs in terms of salaries and other administration costs will be incurred. In a study titled 'Scaling up: The Implementation of Corporate Governance in Pre-IPO Companies' using data from 47 companies that had completed an initial public offering in the United States between 2010 and 2018, Larcker and Tayan (2018) found that it was costly to implement a governance system that meets the needs of regulators set as listing requirement on the Securities exchange. Consequently, if we are to see more participation on the stock market, compliance costs must be made affordable. And so, we hypothesize that:

H₂: SMEs that perceive compliance costs to be affordable are most likely to participate in stock market.

2.7. Marketing costs and stock market participation

Marketing costs constitute direct and indirect trading costs, involved at the initial public offering and subsequent offering of securities (Kaserer & Schierreck, 2007). Direct trading costs defined by

Harris, (2003), include all costs associated with trading securities like brokerage commission, promotion and advertising costs printing, due diligence and some out of pocket expenses that are considered essential to the offer. The study by Oxera (2006) provides convincing evidence that these direct trading costs differ across stock exchanges. In Uganda commission fees payable in relation to trading stock and bonds are 2.1% and 0.05% of the trading value, respectively (USE, 2012), 1.71% in Rwanda while in Kenya brokerage commission ranges between 1.85% and 2.1% of the trading value. Additionally, firms seeking to participate on the stock market through an IPO require more expenses on the promotion and marketing an offer (Bairagi & Dimovski, 2012).

Underpricing is another cost that indirectly measures the issuance cost. Biaragi & Dimovski (2012) define underpricing as the difference between offering price of a new issue and its closing price at the end of the first day of trading. From an underwriter's perspective, underpricing also referred to as IPO discounts serve as a mean to ensure e.g., full subscription of the offerings. Discounts, therefore, tend to be higher for the issuing firm in order to attract as many investors as possible. Contrariwise, according (Kaserer & Schiereck, 2007) issuing firms might also be interested in underpricing their shares, just as underwriters to ensure full subscription of their issues. Additionally, firms considering secondary equity offerings as a mean of subsequent financing in the future have a high interest in successfully placing their shares and avoiding bad publicity and investors' resentment. Extant literature indicates mixed and inconclusive results. Moreover, there is insufficient knowledge on "why the low stock market participation rate?" Thus, we make a contribution by offering an understanding on the role of participation costs in explaining stock market participation; with a special emphasis on the behavior of floatation, compliance and market costs. From the foregoing discussion, it can be hypothesized that:

H₃: SMEs that perceive market costs to be affordable are most likely to participate in stock market.

3. Methodology

3.1. Research design, population and sample

The suitable research design for this paper is cross-sectional design and correlational design. This is because, first, data were collected at a particular point in time, second, we aimed to establish relationships among the study variables. In the accounting and finance literature, such designs have been used (see for example, Bananuka et al., 2019; Sendawula et al., 2020). The study population was 40,098 small and medium enterprises (business taxpayers) in Kampala (Uganda Bureau of Statistics, 2011). According to Uganda Revenue Authority, small and medium enterprises have a chargeable income above 50 million Uganda Shillings which means that they have the potential to list on the USE. The region was chosen because it is the commercial heartland where most of the business activities take place. A sample size of 380 SMEs was derived based on Krejcie and Morgan (1970) table for sample size determination and the SMEs were selected using simple random sampling technique with the aid of the MS Excel random selector. The sampling frame was the Uganda Revenue Authority tax-payers' list (2017). Both the general manager and the accountant filled the questionnaire. The choice was because they have sufficient knowledge on the business operations and performance. Data were collected through a face-to-face approach and we received 290 questionnaires from 219 SMEs giving us a response rate of 57.6% (219). Because we collected data from two officers of the same SME most especially where all of them expressed interest to participate in our research, we aggregated the data to a particular SME.

The respondent characteristics are presented in Table 1. The male respondents were 167 (57.6%) while female respondents were 123 (42.4%). Majority of the respondents were within the age bracket of 31–40 years and these were 113 (38.9%), 80 respondents were in the age bracket of 41–50 years (27.6%), 71 were between 18 and 30 years of age (24.5%) and only 26 (8.9%) were above 50 year. In terms of educational background, 145 respondents (50%) had an

Table 1. Respondents' profile

Background information		Frequency	Percentage
Gender	Male	167	57.6
	Female	123	42.4
	Total	290	100.0
Age	18-30 years	71	24.5
	31-40 years	113	38.9
	41-50 years	80	27.6
	Above 50 years	26	8.9
	Total	290	100.0
Educational background	Diploma	105	36.2
	Undergraduate	145	50.0
	Masters	40	13.8
	Total	290	100.0

Source: Primary data

undergraduate degree, 105 respondents had a diploma and 40 (13.8%) had a master's degree implying that the respondents had the required knowledge to understand the questions asked in the questionnaire. The above respondent characteristics mean that majority of the SMEs are managed by the youth who may not appreciate easily the available cheap sources of finances but rather opt for quicker sources of finances. In the Ugandan education curriculum, a larger percentage of the financing related studies is done at the master's level. Also, financial-related subjects do not cut across all the undergraduate academic programmes. Given that majority of our respondents had undergraduate degrees, it is highly possible that they did not acquire sufficient knowledge related to financing decisions.

3.2. The questionnaire and measurement of variables

This study utilized a questionnaire whose questions were anchored on a five-point Likert scale ranging from strongly disagree to strongly agree. The questionnaire was arrived at after reviewing existing literature on the study variables. The questionnaire had two parts. Part A captured background information of the respondents and firm characteristics. Part B had close-ended questions on the main study variables. A survey questionnaire was used because it is capable of covering a larger sample and the information supplied in it is independent of the researchers' opinions/biases unlike an interview guide (Field, 2009). A close-ended questionnaire is a useful tool in circumstances where the intention of the researcher is to obtain the mean ratings of the extent of agreement with the statements given. Following from the review of literature, we provide operating definitions and the variables measures in Table 2.

3.3. Data screening and quality control

Data from the field were checked to identify missing values and any inconsistencies in responses given by the respondents. Simple frequency runs were made to screen the data so as to identify missing values using series of means value replacement method (Field, 2009). The identified values were a result of omissions made by respondents and constituted less than 1% of the data; thus, considered inconsequential (Little & Rubin, 2002) to suppress the standard deviation (Field, 2009; Mundfrom & Whitcomb, 1998). The fact that missing values were as a result of omissions and unrelated to other values or variables, met the criteria of data missing completely at random (Little & Rubin, 2002).

Content validity index and Cronbach's (1951) α were used to test the validity and reliability of the scales as measures of the study notions. For validity, the questionnaire was given to four (4)

Table 2. Operating definitions of the study variables

Global Variables	Dimension	Acronym	Definition	Authors	Measurement
Participation costs	Floatation costs	FLOAT	Floatation costs refer to costs directly incurred in by a firm in the process of going public, which include underwriting fees and other initial listing costs.		Respondents' mean rank of 7 items of information included in the questionnaire on a 5-point Likert scale
	Compliance costs	COMP	Compliance costs refer to the costs incurred by a firm in the process of complying with the corporate governance and disclosure requirements by the capital markets	Tadashi (2008); Yosha (1995)	Respondents' mean rank of 6 items of information included in the questionnaire on a 5-point Likert scale
	Marketing costs	MARK	Marketing costs constitutes direct and indirect trading costs, involved at the initial public offering and subsequent offering of securities	Kaserer & Schiereck, (2007); Harris, (2003); Bairagi & Dimovski, (2012).	Respondents' mean rank of 7 items of information included in the questionnaire on a 5-point Likert scale
Stock market participation	Perceived participation	SMPAR	This is a situation when a firm issues shares to the public with an intention of raising funds.		Respondents' mean rank of 8 items of information included in the questionnaire on a 5-point Likert scale
Firm age		AGE	Dichotomous variables, 1 if the firm is more than 10 years old; "0" otherwise		
Firm size		SIZE	Dichotomous variables, 1 if the company has more than 50 employees; "0" otherwise		

academicians, three (3) practitioners, and three (3) policymakers for content analysis, their comments were incorporated to validate the instrument before presenting it to the respondents. The resultant content validity index for floatation, compliance, and marketing costs were 0.83, 0.85, and 0.78, respectively. While for reliability, the Cronbach's alpha coefficients for floatation, compliance, and marketing costs were 0.745, 0.772, and 0.762, respectively. The results affirm that all the components of the instrument had an acceptable Cronbach alpha greater than 0.7 which indicates that the instrument was reliable (Field, 2009).

3.4. Testing parametric assumptions

Parametric assumption tests were carried out since the Pearson correlation coefficient requires assumptions of normality. This study adopted the skewness and kurtosis values for assessing normality because of their suitability for the data sample. Field (2009) explains that normal data will have values of skewness and kurtosis ranging from 3.29 to -3.29. Field (2009) further demonstrates that positive values of skewness indicate a pile up of scores on the left of the distribution, whereas negative values indicate a pile up on the right. Field (2009) further explains that positive

Table 3. Descriptive statistics

Item	n	Min	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Stock market participation	219	1.88	4.12	2.911	0.418	.519	.254	1.014	.503
Floataion costs	219	1.86	4.43	2.881	0.561	.488	.254	-.119	.503
Compliance costs	219	1.40	4.40	2.620	0.665	.692	.254	-.020	.503
Marketing costs	219	2.00	4.67	3.022	0.636	.527	.254	-.402	.503
Firm age	219	2	3	2.744	0.439	-1.140	.254	-.717	.503
Firm size	219	1	4	2.000	0.983	.508	.254	-.915	.503

Source: Primary data

values of kurtosis indicate a pointy and heavily tailed distribution, whereas negative values indicate a flat and light tailed distribution. In this study, we follow guidelines for Skewness and kurtosis suggested by Field (2009). Table 3 results indicate that our data set is normally distributed with values ranging from 3.29 to -3.29.

Multicollinearity which is a situation in which two or more variables are very closely linearly related was tested using tolerance statistics and Variance Inflation Factor (VIF). According to Field (2009), tolerance statistics measure multicollinearity and are simply the reciprocal of VIF (1/VIF). Field (2009) recommends that tolerance values below 0.1 indicate a serious multicollinearity problem and tolerance values below 0.2 indicate a potential problem. While for VIF is another measure of multicollinearity and it indicates whether a predictor has a strong linear relationship with other predictor(s). Myers & Myers (1990) suggests that a value of 10 is a good value at which to worry. For this study, the VIF values are all below 10 and the tolerance statistics are above 0.2 (see Table 4) which is an indicator that there were no multicollinearity problems in our data.

3.5. Hypotheses testing

Hierarchical regression analysis was used to test the study hypotheses. Hierarchical regression approach was used in this study because of its capacity to indicate precisely what happens to the model as different predictor variables are introduced in the model. Accordingly, the following model specifications were tested:

$$\text{Model 1: SMP} = \theta_0 + \theta_1\text{AGE} + \theta_2\text{SIZE} + \epsilon_j$$

$$\text{Model 2: SMP} = \theta_0 + \theta_1\text{AGE} + \theta_2\text{SIZE} + \theta_3\text{FC} + \epsilon_j$$

$$\text{Model 3: SMP} = \theta_0 + \theta_1\text{AGE} + \theta_2\text{SIZE} + \theta_3\text{FC} + \theta_4\text{CC} + \epsilon_j$$

$$\text{Model 4: SMP} = \theta_0 + \theta_1\text{AGE} + \theta_2\text{SIZE} + \theta_3\text{FC} + \theta_4\text{CC} + \theta_5\text{MC} + \epsilon_j$$

Where: SMP is stock market participation, θ_0 is a constant, ϵ_j is the error term, FC is floataion costs, CC is compliance costs, MC is marketing costs, AGE is firm age, and SIZE is firm size.

4. Results and discussion

4.1. Descriptive statistics

We present descriptive statistics for the study variables in Table 3 and specifically the minimum and maximum values are reported as well as the means and standard deviations. With respect to the dependent variable—stock market participation, we note that the mean is 2.911 and the standard deviation is 0.418. Also, the maximum and minimum scores for stock market participation are 4.12 and 1.88. The means and standard deviations for floatation costs, compliance costs, and marketing costs are 2.88 and 0.56, 2.62 and 0.66, 3.02 and 0.63, respectively. Means represent a summary of the data while standard deviations show how well the means represent the data (Bananuka et al., 2019; Field, 2009). As can be seen in Table 3, the standard deviations are small as compared to the means which is an indicator that the calculated means are a good fit of the observed data.

4.2. Correlation analysis results

A Pearson correlation analysis was performed to establish the association between participation costs of floatation, compliance and marketing and stock market participation. Table 4 results suggest that floatation costs are significantly associated with stock market participation ($r = 0.553^{**}$, $p < 0.01$) and thus providing initial support for H1. This means that a positive change in affordability of floatation costs will lead to an improvement in the stock market participation. Results further indicate that compliance costs are significantly associated with stock market participation ($r = 0.513^{**}$, $p < 0.01$) and thus H2 is initially supported. A positive change in affordability of compliance costs will lead to an improvement in stock market participation. More still, the results also indicate that marketing costs are significantly associated with stock market participation ($r = 0.340^{**}$, $p < 0.01$) and this provides initial support for H3. For any positive unit change in affordability of marketing costs, a corresponding unit change in improvement in stock market participation would be registered. These results mean that firms that can afford participation costs are likely to participate on the stock market.

4.3. Regression analysis results

A hierarchical regression analysis was conducted to establish the individual contribution of each of the participation costs to stock market participation. In this study, we follow Field (2009) recommendation on entering variables into the model (hierarchical regressions). Field (2009) recommends that variables are entered into the model based on previous works where known predictors are entered first. However, Field (2009) gives an exception in a way that the researcher can decide

Table 4. Pearson Correlation Coefficients

Item	1	2	3	4	5	6
Perceived stock market participation (1)	1					
Floatation costs (2)	.553**	1				
Compliance costs (3)	.513**	.460**	1			
Marketing costs (4)	.340**	.398**	.180	1		
Firm age (5)	-.010	.064	-.121	-.006	1	
Firm size (6)	.228*	.041	.027	-.114	.052	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Primary data

Table 5. Hierarchical regression results

Item	Model 1	Model 2	Model 3	Model 4	VIF	Tolerance
Constant	2.774	1.704	1.372	1.141		
Floatation costs		0.548**	0.396**	0.324**	1.495	0.669
Compliance costs			0.324**	0.325**	1.306	0.765
Marketing costs				0.178**	1.214	0.824
Control Variables						
Firm age	-0.022	-0.056	-0.007	-0.002		
Firm size	0.229	0.209	0.203	0.226		
Model F	2.409	15.536**	16.153**	14.192**		
Adjusted R Square	0.031	0.329	0.405	0.426		
F change	2.409	39.649**	12.027**	4.040**		
R Square change	0.052	0.299	0.080	0.026		
Durbin Watson				2.008		

Source: Primary data

on the order of variables to be entered into the model. In this study, floatation costs were entered first since it was the most significant and this was followed by compliance and marketing costs respectively. However, before the main study variables were entered, control variables had been entered in Model I. In Model I, control variables were not significant and this implies that control variables do not confound the results of testing for the relationship between the main study variables. In Model II, floatation costs are entered and found significant. Model II predicts 32.9% of the variance in stock market participation. In Model III, compliance costs are entered and found significant. Model III predicts 40.5% of the variance in stock market participation. The last and final Model is Model IV where marketing costs are entered and found significant. The final model predicts 42.6% of the variance in stock market participation. Of the three participation costs, marketing costs are the weakest as it only adds 2.5% variance in stock market participation on floatation and compliance costs. We used standardized β to report our results in Table 5. This study variables were measured differently (control variables and main study variables) and as such the standardized β values were used in this study. Table 5 results indicate that marketing costs had the lowest standardized β and this implies that it is a weaker predictor of stock market participation as compared to floatation and compliance costs.

The present study results indicate that floatation costs, compliance costs, and marketing costs make significant contributions to stock market participation. This means that if SMEs afford those participation costs, they are more likely to list on the stock exchange. The findings of this study inform us that, the low participation on the Uganda Stock Exchange can be explained by the fact that the listing costs are high. Results further indicate that stock market participation is mostly affected by floatation costs followed by compliance costs and lastly market costs. This means that SMEs shy away from the stock market because they perceive listing fees, registration fees to be high. It is a fact that firms interested in getting listed have to incur costs such as costs of hiring professional accountants and auditors, commission fees, advertising, publication of the prospectus, and brokerage fees among other costs. The respondents indicated that underwriting fees and listing costs are too high. The registration fees required for listing are also high. In the same spirit, lawyers, accountants, and auditors charge exorbitant fees for their services. We assert that the current high floatation, compliance, and marketing costs explain the low participation on the stock exchange market. Such firms would rather prefer other sources which may in

the end not fetch the amounts required (Haliassos & Michaelides, 2003; Gomes & Michaelides, 2003; Lutwama, 2006; Paiella, 2007). The findings provide support to the finance theories theory which posits that the higher the cost of capital, the lower the amount of capital raised.

SMEs need to consider going public as an alternative source of capital for growth and sustainability. However, this can only be possible if the costs associated can be afforded by the potential firms. This means that it is pertinent to pay attention to the cost of going public since it has the ability to determine how much capital such firms can raise. According to Matic, Gorajek and Stewart (2012), SMEs face prohibitively higher fixed costs of raising funds in capital markets, which reduces the capacity of such firms to use market-based finance. We therefore agree that if we are to see improvement in participation on the stock exchange market, the different players need to bring down the associated costs. It is only when potential firms perceive floatation, compliance, and marketing costs as affordable that they will participate.

5. Summary and conclusion

This study aimed to examine the contribution of participation in explaining stock market participation in developing countries. This was achieved through a questionnaire survey of 219 small and medium enterprises and findings suggest that, floatation, compliance, and marketing costs are significant predictors of stock market participation in developing countries.

This study findings are important to both the practitioners, academicians and the community. To the practitioners and the business community, it is high time they negotiated with the Uganda Securities Exchange (USE) on how small and medium enterprises can benefit from USE services without incurring high costs. There is a need for sensitization of the masses about the benefits of listing on the stock exchange and this can jointly be done by both USE and the regulator of capital markets. It is important to note that, listing a firm is one of the cheap sources of rising sufficient capital that the community can opt for instead of loan financing. To the academicians, this study provides initial empirical evidence on the contribution of participation costs and stock market participation in an emerging economy like Uganda. Future studies need to replicate the findings of this study in different contexts to test the robustness of the model.

Like any other study, this study is not without limitations. The study limitations can be seen as fruitful avenues for future research under the same theme. Firstly, the study used evidence obtained from Uganda and uses a cross-sectional research design. The major weakness with cross-sectional research designs is that, it is difficult to monitor changes in behavior over time. There is a need for further studies in other national settings, especially in developing countries that employ longitudinal design or a follow-up study on the same sample may be conducted to see if there has been any change in the SME managers' decisions regarding IPO. Secondly, this study lacks cross-validation as extant literature has not examined participation costs and stock market participation in an emerging economy. Consequently, the limited literature available, especially in a developing country context, deprived the study of the opportunity to cross-validate the present study findings. Future studies should be conducted to confirm these results. Thirdly, the study concentrated on participation cost as a predictor of stock market participation without considering other factors such as capital structure and profitability of the company. These other factors may have far-reaching effects on the decision to go public. Future studies may investigate the effect of other factors such as capital structure, profitability, and possibly ownership structure since such factors may influence decisions regarding IPO. Nonetheless study's results remain useful.

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